PHIL-05939

Colour television **Chassis**

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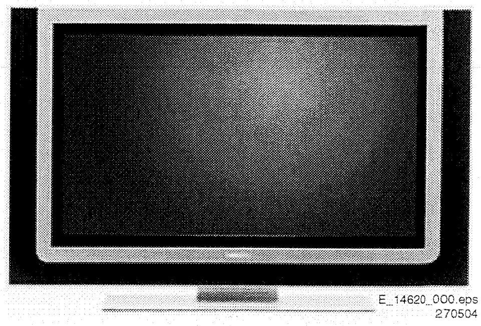
AA

Service
Service
Service



Service Manual

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PHILIPS

1. Technical Specifications, Connections, and Chassis Overview

Index of this chapter:

1.1 Technical Specifications
1.2 Connections
1.3 Chassis Overview

Notes:
- Figures can deviate due to the different set executions.
- Specifications are indicative (subject to change).

1.1 Technical Specifications

1.1.1 Vision

Display type	LCD
Screen size	32" (82 cm), 16:9
	37" (94 cm), 16:9
	42" (107 cm), 16:9
Resolution (HxV pixels)	32": 1366(*3)x768
	37": 1920(*3)x1080
	42": 1920(*3)x1080
Dynamic contrast ratio	32": 6000:1
	37": 5000:1
	42": 4000:1
Light output (cd/m^2)	32", 37": 550
	42": 500
Typical LCD response time (ms)	32", 42": 8
	37": 6
Viewing angle (HxV degrees)	176
Tuning system	PLL
Colour systems	PAL B/G, D/K, I
	SECAM B/G, D/K, L/L'
Supported computer formats (60 Hz)	640x480
	800x600
	1024x768
	1366x768
Supported video formats	640x480i - 1fH
	720x576i - 1fH
	640x480p - 2fH
	720x576p - 2fH
	1920x1080i - 2fH
	1280x720p - 3fH
AV (playback only)	NTSC, PAL, SECAM
Tuner bands	UHF, VHF, S, Hyper

1.1.2 Sound

Sound systems	AV stereo,
	2CS B/G, D/K
	NIC. B/G, D/K, I, L/L'
Maximum power (W_{RMS})	2 x 15 (int.)

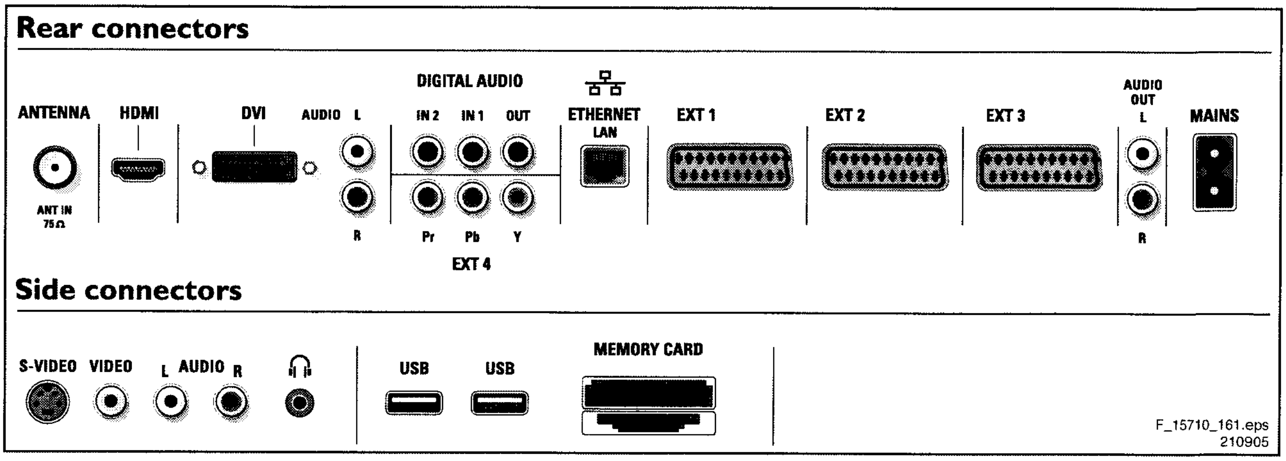
1.1.3 Multimedia

Supported digital media	Compact Flash I & II
	Memory Stick
	Microdrive
	SD / mini SD Card
	Multi Media Card
	Smart Media Card
Supported file formats	JPEG
	MP3
	Slideshow (.alb)
	DivX 5 (only 42")
	MPEG1, 2, 4(only 42")
	XviD (only 42")
USB input	USB2.0

1.1.4 Miscellaneous

Power supply:	
- Mains voltage (V_{AC})	220 - 240
- Mains frequency (Hz)	50 / 60
Ambient conditions:	
- Temperature range (°C)	+5 to +40
- Maximum humidity	90% R.H.
Power consumption (values are indicative)	
- Normal operation (W)	32": 163
	37": 221
	42": 239
- Stand-by (W)	< 2
Dimensions (WxHxD cm)	32": 1000x605x96
	37": 1130x680x96
	42": 1238x755x96
Weight (kg)	32": 20
	37": 27
	42": 35

1.2 Connections


Rear connectors
ANTENNA
ANT IN 75Ω
HDMI
DVI
AUDIO L
R
DIGITAL AUDIO
IN 2
IN 1
OUT
Pr
Pb
Y
EXT 4
ETHERNET
LAN
EXT 1
EXT 2
EXT 3
AUDIO OUT L
R
MAINS
Side connectors
S-VIDEO
VIDEO
L AUDIO R
USB
USB
MEMORY CARD
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210905

Figure 1-1 Connection overview

Note: The following connector colour abbreviations are used (acc. to DIN/IEC 757): Bk= Black, Bu= Blue, Gn= Green, Gy= Grey, Rd= Red, Wh= White, Ye= Yellow.

1.2.1 Side Connections

Headphone (Output)

Bk	- Headphone	32 - 600 ohm / 10 mW	◎/🎧

Cinch: Video CVBS - In, Audio - In

Rd	- Audio R	0.5 V_{RMS} / 10 kohm	→○◎
Wh	- Audio L	0.5 V_{RMS} / 10 kohm	→○◎
Ye	- Video CVBS	1 V_{PP} / 75 ohm	→○◎

SVHS (Hosiden): Video Y/C - In

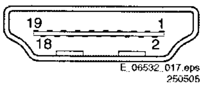
1	- Ground Y	Gnd	⏚
2	- Ground C	Gnd	⏚
3	- Video Y	1 V_{PP} / 75 ohm	→○
4	- Video C	0.3 V_{PP}P / 75 ohm	→○

1.2.2 Rear Connections

Aerial - In

- IEC-type	Coax, 75 ohm	⊤

HDMI 1 & 2: Digital Video, Digital Audio - In


19
1
18
2
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250505

Figure 1-2 HDMI (type A) connector

1	- D2+	Data channel	→○
2	- Shield	Gnd	⏚
3	- D2-	Data channel	→○
4	- D1+	Data channel	→○
5	- Shield	Gnd	⏚
6	- D1-	Data channel	→○
7	- D0+	Data channel	→○
8	- Shield	Gnd	⏚
9	- D0-	Data channel	→○
10	- CLK+	Data channel	→○
11	- Shield	Gnd	⏚
12	- CLK-	Data channel	→○
13	- n.c.		
14	- n.c.		
15	- DDC_SCL	DDC clock	→○
16	- DDC_SDA	DDC data	→○○→
17	- Ground	Gnd	⏚
18	- +5V		→○
19	- HPD	Hot Plug Detect	→○
20	- Ground	Gnd	⏚

DVI-I: Digital/Analogue Video - In

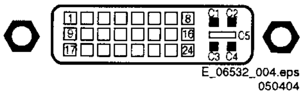
1
8
9
16
17
24
C1
C2
C5
C3
C4
E_06532_004.eps
050404

Figure 1-3 DVI-I connector

1	- D2-		→○
2	- D2+		→○
3	- Shield	Gnd	⏚
4	- D4-		→○
5	- D4+		→○
6	- DDC_SCL	DDC clock	○→
7	- DDC_SDA	DDC data	→○○→
8	- V-sync	0 - 5 V	→○
9	- D1-		→○
10	- D1+		→○
11	- Shield	Gnd	⏚
12	- D3-		→○
13	- D3+		→○
14	- +5V		→○
15	- Ground	Gnd	⏚
16	- HPD	Hot Plug Detect	→○
17	- D0-		→○
18	- D0+		→○
19	- Shield	Gnd	⏚
20	- D5-		→○
21	- D5+		→○
22	- Shield	Gnd	⏚
23	- CLK+		→○
24	- CLK-		→○
C1	- Video Red	0.7 V_{PP} / 75 ohm	→○
C2	- Video Green	0.7 V_{PP} / 75 ohm	→○
C3	- Video Blue	0.7 V_{PP} / 75 ohm	→○
C4	- H-sync	0 - 5 V	→○
C5	- Ground	Gnd	⏚

Cinch: DVI Audio - In

Rd	- Audio - R	0.5 V_{RMS} / 10 kohm	→○◎
Wh	- Audio - L	0.5 V_{RMS} / 10 kohm	→○◎

Digital Audio: S/PDIF - In/Out

Bk	- Coaxial	0.2 - 0.6V_{PP} / 75 ohm	→○◎

Bk	- Coaxial	0.2 - 0.6V_{PP} / 75 ohm	→○◎
Bk	- Coaxial	0.4 - 0.6V_{PP} / 75 ohm	○→◎

EXT4 Cinch: Video YPbPr - In

Gn	- Video Y	1 V_{PP} / 75 ohm	→○◎
Bu	- Video Pb	0.7 V_{PP} / 75 ohm	→○◎
Rd	- Video Pr	0.7 V_{PP} / 75 ohm	→○◎

RJ45: Ethernet (if present)

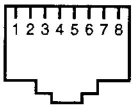

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Figure 1-4 Ethernet connector

1	- TD+	Transmit signal	○→
2	- TD-	Transmit signal	○→
3	- RD+	Receive signal	→○
4	- n.c.		
5	- n.c.		
6	- RD-	Receive signal	→○
7	- n.c.		
8	- n.c.		

EXT1: Video RGB - In, CVBS - In/Out, Audio - In/Out

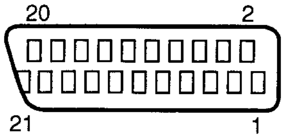

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Figure 1-5 SCART connector

1	- Audio R	0.5 V_{RMS} / 1 kohm	○→
2	- Audio R	0.5 V_{RMS} / 10 kohm	→○
3	- Audio L	0.5 V_{RMS} / 1 kohm	○→
4	- Ground Audio	Gnd	⏚
5	- Ground Blue	Gnd	⏚
6	- Audio L	0.5 V_{RMS} / 10 kohm	→○
7	- Video Blue	0.7 V_{PP} / 75 ohm	→○○→
8	- Function Select	0 - 2 V: INT 4.5 - 7 V: EXT 16:9 9.5 - 12 V: EXT 4:3	→○
9	- Ground Green	Gnd	⏚
10	- Easylink P50	0 - 5 V / 4.7 kohm	→○○→
11	- Video Green	0.7 V_{PP} / 75 ohm	→○
12	- n.c.		
13	- Ground Red	Gnd	⏚
14	- Ground P50	Gnd	⏚
15	- Video Red	0.7 V_{PP} / 75 ohm	→○
16	- Status/FBL	0 - 0.4 V: INT 1 - 3 V: EXT / 75 ohm	→○
17	- Ground Video	Gnd	⏚
18	- Ground FBL	Gnd	⏚
19	- Video CVBS	1 V_{PP} / 75 ohm	○→
20	- Video CVBS	1 V_{PP} / 75 ohm	→○
21	- Shield	Gnd	⏚

Service Connector (UART)

1	- UART_TX	Transmit	○→
2	- Ground	Gnd	⏚
3	- UART_RX	Receive	→○

EXT2: Video RGB/YC - In, CVBS - In/Out, Audio - In/Out

1	- Audio R	0.5 V_{RMS} / 1 kohm	○→
2	- Audio R	0.5 V_{RMS} / 10 kohm	→○
3	- Audio L	0.5 V_{RMS} / 1 kohm	○→
4	- Ground Audio	Gnd	⏚
5	- Ground Blue	Gnd	⏚
6	- Audio L	0.5 V_{RMS} / 10 kohm	→○
7	- Video Blue/C-out	0.7 V_{PP} / 75 ohm	→○○→
8	- Function Select	0 - 2 V: INT 4.5 - 7 V: EXT 16:9 9.5 - 12 V: EXT 4:3	→○
9	- Ground Green	Gnd	⏚
10	- Easylink P50	0 - 5 V / 4.7 kohm	→○○→
11	- Video Green/Y	0.7 V_{PP} / 75 ohm	→○
12	- n.c.		
13	- Ground Red	Gnd	⏚
14	- Ground P50	Gnd	⏚
15	- Video Red/C	0.7 V_{PP} / 75 ohm	→○
16	- Status/FBL	0 - 0.4 V: INT 1 - 3 V: EXT / 75 ohm	→○
17	- Ground Video	Gnd	⏚
18	- Ground FBL	Gnd	⏚
19	- Video CVBS	1 V_{PP} / 75 ohm	○→
20	- Video CVBS/Y	1 V_{PP} / 75 ohm	→○
21	- Shield	Gnd	⏚

EXT3: Video CVBS - In/Out, Audio - In

1	- n.c.		
2	- Audio R	0.5 V_{RMS} / 10 kohm	→○
3	- n.c.		
4	- Ground Audio	Gnd	⏚
5	- Ground Blue	Gnd	⏚
6	- Audio L	0.5 V_{RMS} / 10 kohm	→○
7	- n.c.		
8	- Function Select	0 - 2 V: INT 4.5 - 7 V: EXT 16:9 9.5 - 12 V: EXT 4:3	→○
9	- Ground Green	Gnd	⏚
10	- n.c.		
11	- n.c.		
12	- n.c.		
13	- Ground Red	Gnd	⏚
14	- Ground Data	Gnd	⏚
15	- n.c.		
16	- n.c.		
17	- Ground Video	Gnd	⏚
18	- Ground FBL	Gnd	⏚
19	- Video CVBS	1 V_{PP} / 75 ohm	○→
20	- Video CVBS	1 V_{PP} / 75 ohm	→○
21	- Shield	Gnd	⏚

Cinch: Audio - Out

Rd	- Audio - R	0.5 V_{RMS} / 10 kohm	○→◎
Wh	- Audio - L	0.5 V_{RMS} / 10 kohm	○→◎

1.3 Chassis Overview

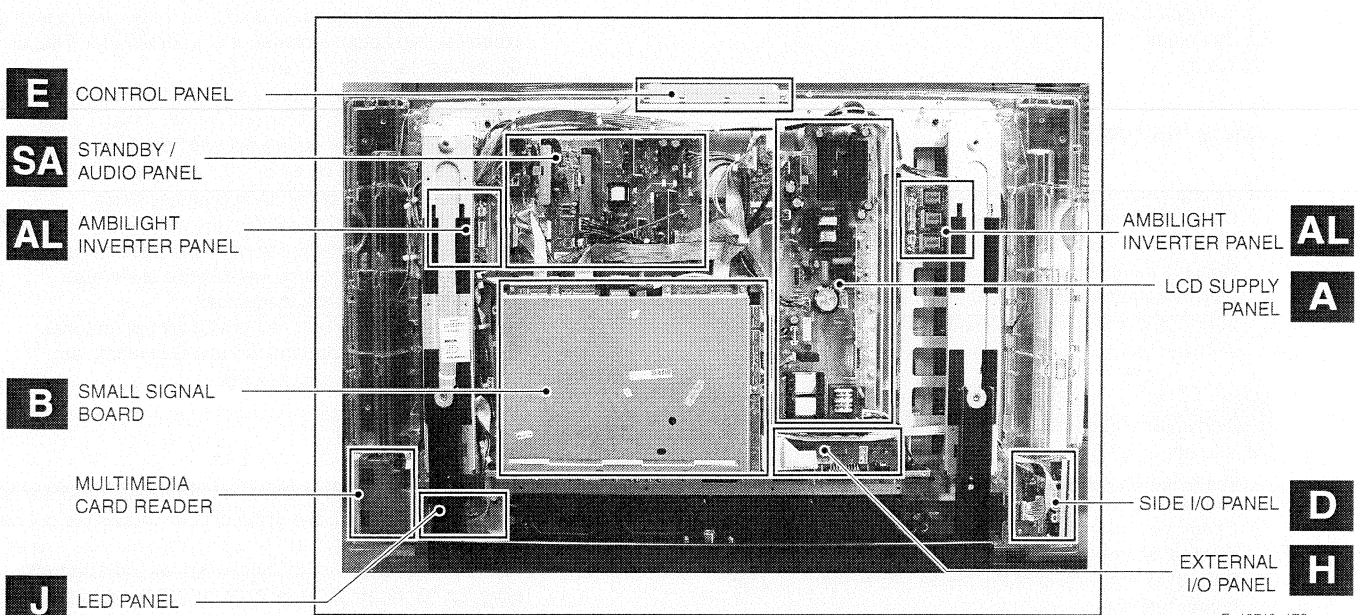
E
CONTROL PANEL
SA
STANDBY / AUDIO PANEL
AL
AMBILIGHT INVERTER PANEL
B
SMALL SIGNAL BOARD
MULTIMEDIA CARD READER
J
LED PANEL
AMBILIGHT INVERTER PANEL
AL
LCD SUPPLY PANEL
A
SIDE I/O PANEL
D
EXTERNAL I/O PANEL
H

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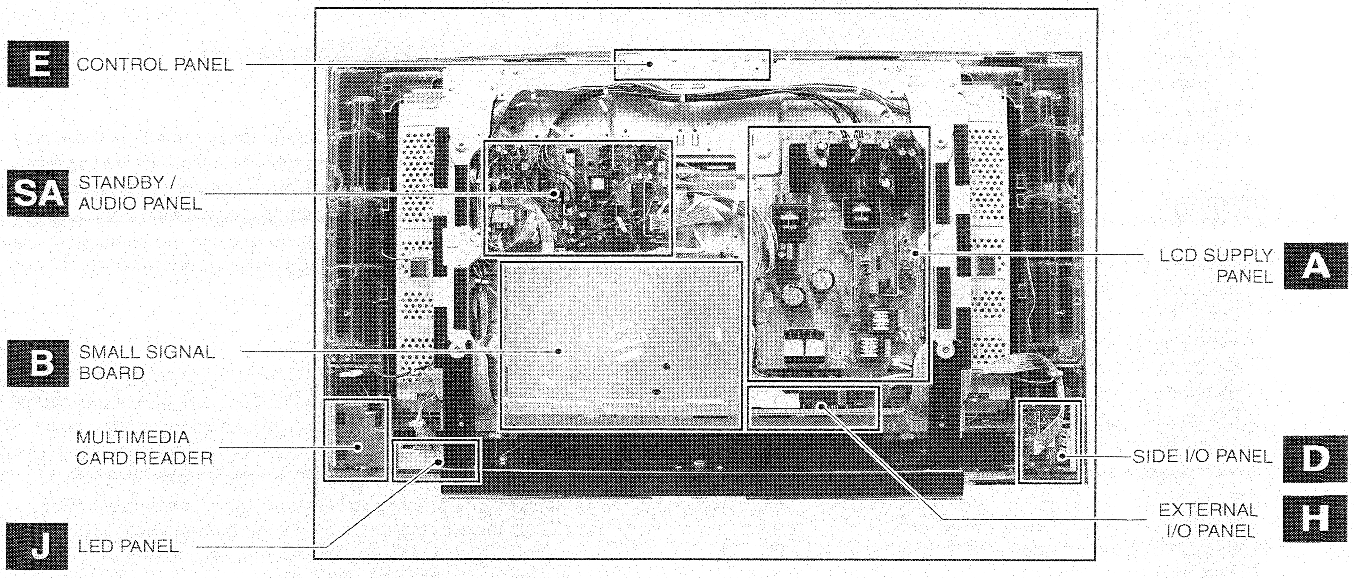
Figure 1-6 PWB locations (32" model)


E
CONTROL PANEL
SA
STANDBY / AUDIO PANEL
B
SMALL SIGNAL BOARD
MULTIMEDIA CARD READER
J
LED PANEL
LCD SUPPLY PANEL
A
SIDE I/O PANEL
D
EXTERNAL I/O PANEL
H

AL AMBILIGHT INVERTER PANELS : These are located in the rear cover.

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Figure 1-7 PWB locations (37" and 42" models)

2. Safety Instructions, Warnings, and Notes

Index of this chapter:

2.1 Safety Instructions
2.2 Warnings
2.3 Notes

2.1 Safety Instructions

Safety regulations require the following **during** a repair:

- Connect the set to the Mains (AC Power) via an isolation transformer (> 800 VA).
- Replace safety components, indicated by the symbol ⚠, only by components identical to the original ones. Any other component substitution (other than original type) may increase risk of fire or electrical shock hazard.

Safety regulations require that **after** a repair, the set must be returned in its original condition. Pay in particular attention to the following points:

- Route the wire trees correctly and fix them with the mounted cable clamps.
- Check the insulation of the Mains (AC Power) lead for external damage.
- Check the strain relief of the Mains (AC Power) cord for proper function.
- Check the electrical DC resistance between the Mains (AC Power) plug and the secondary side (only for sets that have a Mains (AC Power) isolated power supply):
  1. Unplug the Mains (AC Power) cord and connect a wire between the two pins of the Mains (AC Power) plug.
  2. Set the Mains (AC Power) switch to the "on" position (keep the Mains (AC Power) cord unplugged!).
  3. Measure the resistance value between the pins of the Mains (AC Power) plug and the metal shielding of the tuner or the aerial connection on the set. The reading should be between 4.5 Mohm and 12 Mohm.
  4. Switch "off" the set, and remove the wire between the two pins of the Mains (AC Power) plug.
- Check the cabinet for defects, to prevent touching of any inner parts by the customer.

2.2 Warnings

- All ICs and many other semiconductors are susceptible to electrostatic discharges (ESD ⚠). Careless handling during repair can reduce life drastically. Make sure that, during repair, you are connected with the same potential as the mass of the set by a wristband with resistance. Keep components and tools also at this same potential. Available ESD protection equipment:
  - Complete kit ESD3 (small tablemat, wristband, connection box, extension cable and earth cable) 4822 310 10671.
  - Wristband tester 4822 344 13999.
- Be careful during measurements in the high voltage section.
- Never replace modules or other components while the unit is switched "on".
- When you align the set, use plastic rather than metal tools. This will prevent any short circuits and the danger of a circuit becoming unstable.

2.3 Notes

2.3.1 General

- Measure the voltages and waveforms with regard to the chassis (= tuner) ground (⏚), or hot ground (⏚), depending on the tested area of circuitry. The voltages and waveforms shown in the diagrams are indicative. Measure them in the Service Default Mode (see chapter 5) with a colour bar signal and stereo sound (L: 3 kHz, R: 1 kHz unless stated otherwise) and picture carrier at 475.25 MHz for PAL, or 61.25 MHz for NTSC (channel 3).
- Where necessary, measure the waveforms and voltages with (╕╒) and without (✳) aerial signal. Measure the voltages in the power supply section both in normal operation (①) and in stand-by (⏻). These values are indicated by means of the appropriate symbols.
- The semiconductors indicated in the circuit diagram and in the parts lists, are interchangeable per position with the semiconductors in the unit, irrespective of the type indication on these semiconductors.
- Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic" and the "double-D symbol", are trademarks of Dolby Laboratories.

2.3.2 Schematic Notes

- All resistor values are in ohms, and the value multiplier is often used to indicate the decimal point location (e.g. 2K2 indicates 2.2 kohm).
- Resistor values with no multiplier may be indicated with either an "E" or an "R" (e.g. 220E or 220R indicates 220 ohm).
- All capacitor values are given in micro-farads ($\mu = x10^{-6}$), nano-farads ($n = x10^{-9}$), or pico-farads ($p = x10^{-12}$).
- Capacitor values may also use the value multiplier as the decimal point indication (e.g. 2p2 indicates 2.2 pF).
- An "asterisk" (*) indicates component usage varies. Refer to the diversity tables for the correct values.
- The correct component values are listed in the Spare Parts List. Therefore, always check this list when there is any doubt.

2.3.3 Rework on BGA (Ball Grid Array) ICs

General
Although (LF)BGA assembly yields are very high, there may still be a requirement for component rework. By rework, we mean the process of removing the component from the PWB and replacing it with a new component. If an (LF)BGA is removed from a PWB, the solder balls of the component are deformed drastically so the removed (LF)BGA has to be discarded.

Device Removal
As is the case with any component that, is being removed, it is essential when removing an (LF)BGA, that the board, tracks, solder lands, or surrounding components are not damaged. To remove an (LF)BGA, the board must be uniformly heated to a temperature close to the reflow soldering temperature. A uniform temperature reduces the risk of warping the PWB.
To do this, we recommend that the board is heated until it is certain that all the joints are molten. Then carefully pull the component off the board with a vacuum nozzle. For the appropriate temperature profiles, see the IC data sheet.

Area Preparation
When the component has been removed, the vacant IC area must be cleaned before replacing the (LF)BGA.
Removing an IC often leaves varying amounts of solder on the mounting lands. This excessive solder can be removed with either a solder sucker or solder wick. The remaining flux can be removed with a brush and cleaning agent.
After the board is properly cleaned and inspected, apply flux on the solder lands and on the connection balls of the (LF)BGA.
Note: Do not apply solder paste, as this has been shown to result in problems during re-soldering.

Device Replacement

The last step in the repair process is to solder the new component on the board. Ideally, the (LF)BGA should be aligned under a microscope or magnifying glass. If this is not possible, try to align the (LF)BGA with any board markers. So as not to damage neighbouring components, it may be necessary to reduce some temperatures and times.

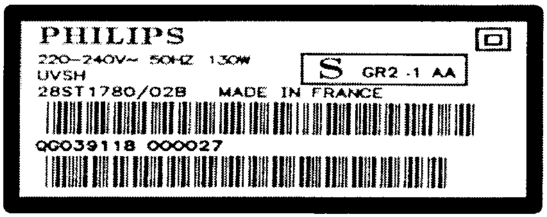
More Information

For more information on how to handle BGA devices, visit this URL: *www.atyourservice.ce.philips.com* (needs subscription, not available for all regions). After login, select "Magazine", then go to "Workshop Information". Here you will find Information on how to deal with BGA-ICs.

2.3.4 Lead-free Solder

Philips CE is producing lead-free sets (PBF) from 1.1.2005 onwards.

Identification: The bottom line of a type plate gives a 14-digit serial number. Digits 5 and 6 refer to the production year, digits 7 and 8 refer to production week (in example below it is 1991 week 18).



PHILIPS

220–240V~ 50HZ 130W

UVSH

S GR2 -1 AA

28ST1780/02B MADE IN FRANCE

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230205

Figure 2-1 Serial number example

Regardless of the special lead-free logo (which is not always indicated), one must treat all sets from this date onwards according to the rules as described below.

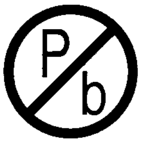


Figure 2-2 Lead-free logo

Due to lead-free technology some rules have to be respected by the workshop during a repair:

- Use only lead-free soldering tin Philips SAC305 with order code 0622 149 00106. If lead-free solder paste is required, please contact the manufacturer of your soldering equipment. In general, use of solder paste within workshops should be avoided because paste is not easy to store and to handle.
- Use only adequate solder tools applicable for lead-free soldering tin. The solder tool must be able:
  - To reach a solder-tip temperature of at least 400°C.
  - To stabilise the adjusted temperature at the solder-tip.
  - To exchange solder-tips for different applications.
- Adjust your solder tool so that a temperature of around 360°C - 380°C is reached and stabilised at the solder joint. Heating time of the solder-joint should not exceed ~ 4 sec. Avoid temperatures above 400°C, otherwise wear-out of tips will increase drastically and flux-fluid will be destroyed. To avoid wear-out of tips, switch "off" unused equipment or reduce heat.
- Mix of lead-free soldering tin/parts with leaded soldering tin/parts is possible but PHILIPS recommends strongly **to avoid** mixed regimes. If this cannot be avoided, carefully clear the solder-joint from old tin and re-solder with new tin.
- Use only original spare-parts listed in the Service-Manuals. Not listed standard material (commodities) has to be purchased at external companies.
- Special information for lead-free BGA ICs: these ICs will be delivered in so-called "dry-packaging" to protect the IC against moisture. This packaging may only be opened shortly before it is used (soldered). Otherwise the body of the IC gets "wet" inside and during the heating time the structure of the IC will be destroyed due to high (steam-) pressure inside the body. If the packaging was opened before usage, the IC has to be heated up for some hours (around 90°C) for drying (think of ESD-protection!).
  Do not re-use BGAs at all!
- For sets produced before 1.1.2005, containing leaded soldering tin and components, all needed spare parts will be available till the end of the service period. For the repair of such sets nothing changes.

In case of doubt whether the board is lead-free or not (or with mixed technologies), you can use the following method:

- Always use the highest temperature to solder, when using SAC305 (see also instructions below).
- De-solder thoroughly (clean solder joints to avoid the mixing of two alloys).

Caution: For BGA-ICs, you **must** use the correct temperature profile, which is coupled to the 12NC. For an overview of these profiles, visit the website *www.atyourservice.ce.philips.com* (needs subscription, but is not available for all regions).
You will find this and more technical information within the "Magazine", chapter "Workshop information".
For additional questions please contact your local repair help desk.

2.3.5 Practical Service Precautions

- **It makes sense to avoid exposure to electrical shock.** While some sources are expected to have a possible dangerous impact, others of quite high potential are of limited current and are sometimes held in less regard.
- **Always respect voltages.** While some may not be dangerous in themselves, they can cause unexpected reactions that are best avoided. Before reaching into a powered TV set, it is best to test the high voltage insulation. It is easy to do, and is a good service precaution.

3. Directions for Use

You can download this information from the following websites:
http://www.philips.com/support
http://www.p4c.philips.com

Notes:
- As the software upgrade is a new feature, it is explained below.
- Figures can deviate due to the different set executions.

Annex 1 - Philips TV software upgrade with portable memory

Introduction

Philips offers software upgrade capability for your TV using portable memory.
After you have completed a software upgrade, your TV will typically perform better.
What improvements are made depends on the upgrade software you are using as well as the software your TV contained before the upgrade.
You can execute the software upgrade procedure yourself.
Be aware that the content of this document is addressing technical or software skilled users.

Preparing a portable memory for software upgrade

For the procedure you will require:
- A personal computer with web browsing capability.
- An archive utility that supports the ZIP-format (e.g. WinZip for Windows or StuffIt for Mac OS.
- A preferably empty USB memory stick or memory card (if available). Supported memory cards (if available): CompactFlash Card Type I & II, IBM Microdrive, Memory Stick, SecureDigital Card / Mini SD Card, SmartMedia Card, MultiMedia Card.
  Note: Only FAT/DOS-formatted portable memory is supported.

New software can be obtained from your dealer or can be downloaded from the www.philips.com/support website:

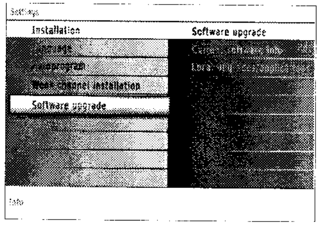
❶ Go to **www.philips.com/support** using the web browser on your PC.

❷ Follow the procedure to find the information and the software related to your TV.

❸ Select the latest software upgrade file and download it to your PC.

❹ Decompress the ZIP-file and copy the file "autorun.upg" to the root directory of the USB portable memory.
Note: Only use software upgrades that can be found on the www.philips.com/support web site.

Verifying the version of the TV software

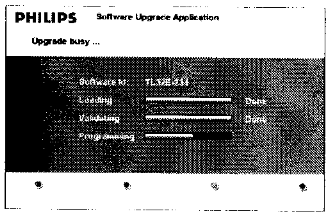


Before starting the software upgrade procedure, it is advised to check what the current TV software is.

❶ Select **Software Upgrade** in the Installation menu.

❷ Press the cursor right.
The Software Upgrade menu moves to the left panel.

❸ Select **Current Software Info** to observe the version and the description of the current software.



Automatic software upgrade procedure

❶ Power off your TV and remove all memory devices.

❷ Insert the USB portable memory that contains the downloaded software upgrade.

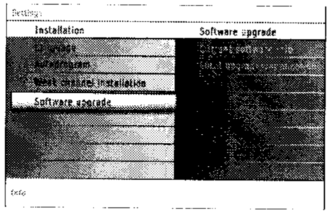
❸ Switch on your TV with the power switch ⏻ at the right side of the TV.

❹ At startup the TV will scan the USB portable memory until it finds the update content. The TV will automatically go to the upgrade mode. After a few seconds it will display the status of the upgrade procedure.

Warning:
- *You are not allowed to remove the USB portable memory during the software upgrade procedure!*
- *In case of a power drop during the upgrade procedure, don't remove the USB portable memory from the TV. The TV will continue the upgrade as soon as the power comes back.*
- *If you try to upgrade to a software version lower than the current version, a confirmation will be asked. Downgrading to older software should only be done in case of real necessity.*
- *If an error occurs during the upgrade you should retry the procedure or contact your dealer.*

❺ When the software upgrade was successful, remove the USB portable memory and restart your TV with the power switch ⏻ at the right side of the TV.
Your TV will start up with the new software.
Note: Once the upgrade is finished use your PC to remove the TV software from your USB portable memory.

Manual software upgrade procedure



For a manual software upgrade copy the "autorun.upg" file in a directory called "Upgrades" located in the root of the USB portable memory.

❶ Insert the portable memory that contains the downloaded software upgrade.

❷ Select **Software Upgrade** in the Installation menu. Go to **Local upgrades/applications**.
The TV will list all compatible images available on the USB portable memory and display the data for each selected upgrade image.

❸ Select the correct upgrade image and press the red color button to start the upgrade.
Your TV will restart and will automatically go to the upgrade mode. After a few seconds it will display the status of the upgrade procedure.
Warning:
If you try to upgrade to a software version equal or lower than the current version, a confirmation will be asked. Downgrading to older software should only be done in case of real necessity.

❹ When the software upgrade was successful, remove the USB portable memory and restart your TV with the power switch ⏻ at the right side of the TV.
Your TV will start up with the new software.

4. Mechanical Instructions

Index of this chapter:

4.1 Cable Dressing
4.2 Service Position
4.3 Assy/PWB (Dis)Assembly
4.4 Display Disassembly
4.5 Set Re-assembly

Notes:

- Figures below can deviate slightly from the actual situation, due to the different model executions.
- Follow the disassemble instructions in described order.
- For “simple” actions, the descriptions will be only textual, where the more complicated ones will be clarified with figures.

4.1 Cable Dressing

4.1.1 Chassis

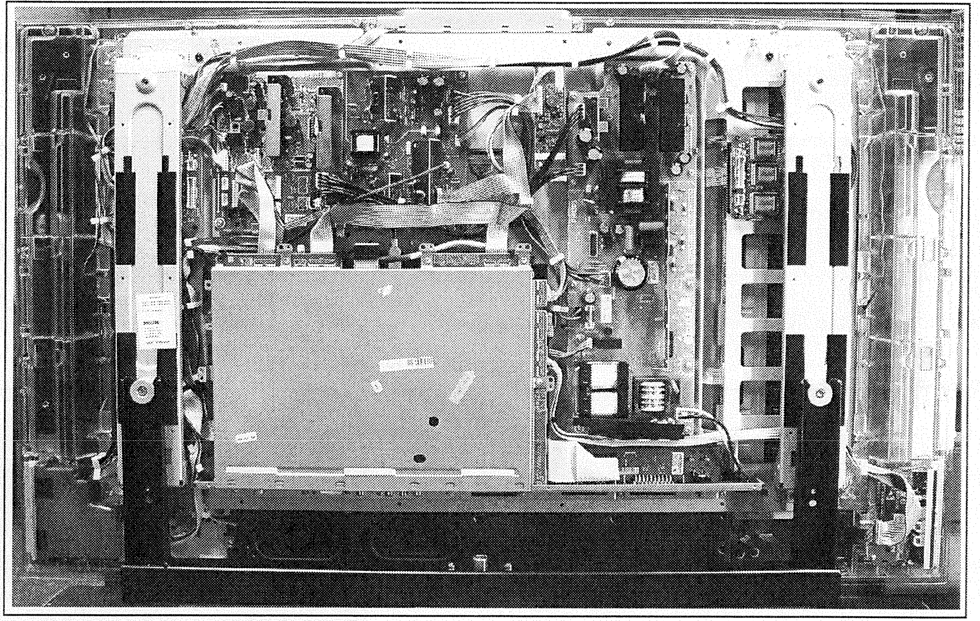

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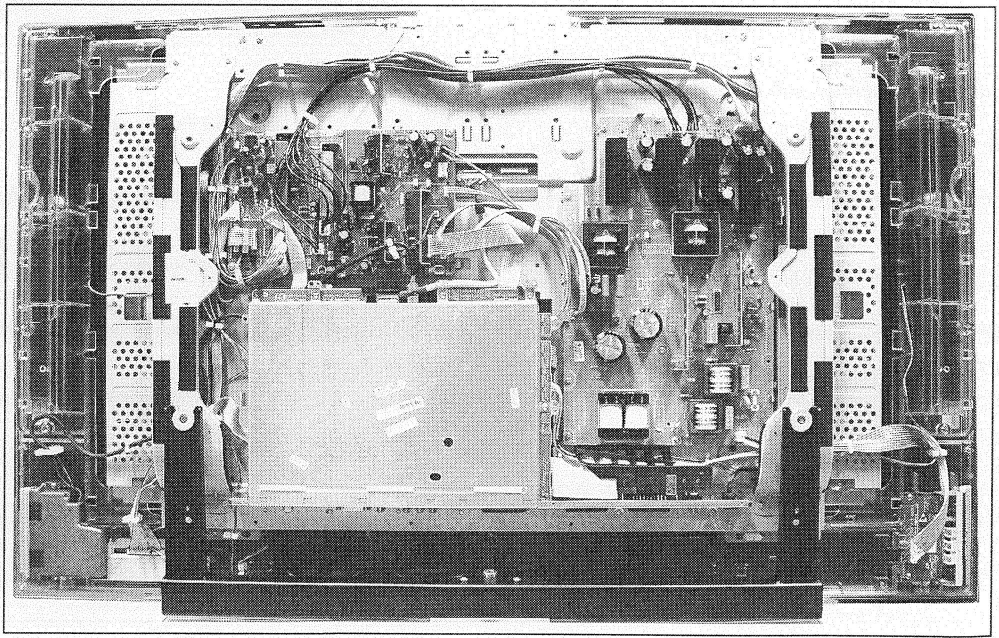
Figure 4-1 Chassis cable dressing (32” model)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210905

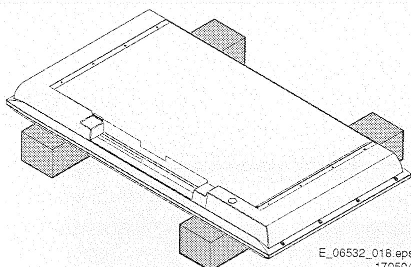
Figure 4-2 Chassis cable dressing (37” and 42” models)

4.2 Service Position

For easy servicing of this set, there are a few possibilities created:

- The buffers from the packaging.
- Foam bars (created for Service).
- Aluminium service stands (created for Service).

4.2.1 Foam Bars



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170504

Figure 4-3 Foam bars

The foam bars (order code 3122 785 90580 for two pieces) can be used for all types and sizes of Flat TVs. By laying the TV face down on the (ESD protective) foam bars, a stable situation is created to perform measurements and alignments.
By placing a mirror under the TV, you can monitor the screen.

4.2.2 Aluminium Stands

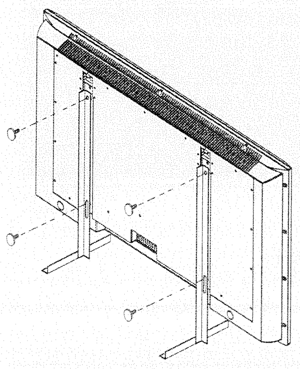

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Figure 4-4 Aluminium stands (Mk1)

The new (Mk2) aluminium stands (order code 3122 785 90690) can also be used to do measurements, alignments, and duration tests. The stands can be (dis)mounted quick and easy by means of sliding them in/out the "mushrooms".
Important: For (older) FTV sets without these "mushrooms", it is obligatory to use the provided screws, otherwise it is possible to damage the monitor inside!.

4.3 Assy/PWB (Dis)Assembly

4.3.1 Metal Back Plate

Caution: Disconnect the mains power cord before you remove the metal back plate.

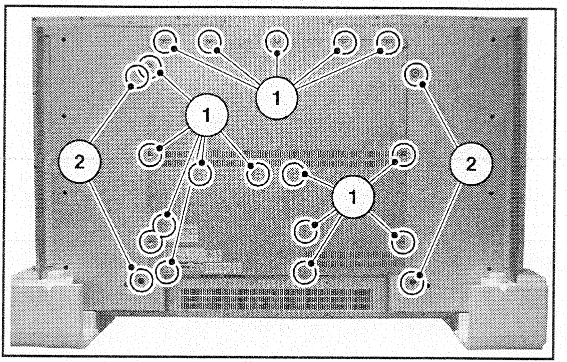

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Figure 4-5 Metal back plate

1. Place the TV set upside down on a table top, using the foam bars (see part "Foam Bars").
   Caution: do **not** put pressure on the LCD display, but let the monitor lean on the speakers or the Front cover.
2. Remove all T10 parker screws (1) from the top, left, and right side of the metal back plate.
3. Remove all T10 tapping screws (2) from the centre and bottom side of the metal back plate.
4. Lift the plate from the set. (it hinges at the bottom side).

4.3.2 Rear Cover

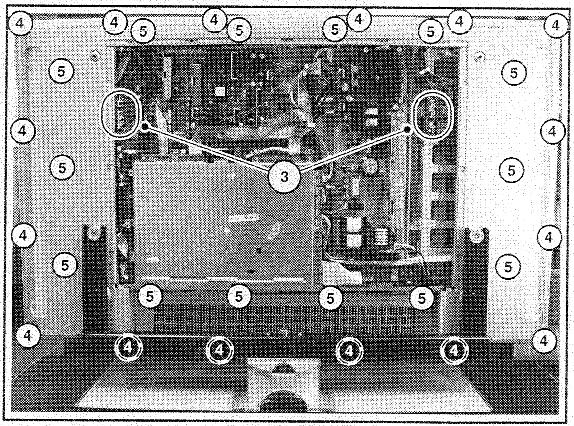

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Figure 4-6 Rear cover (32" model)

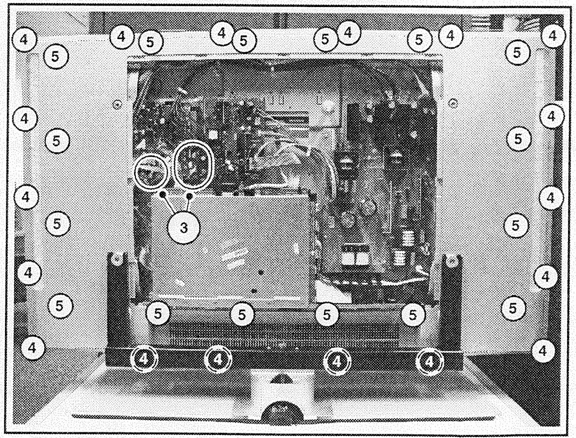

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Figure 4-7 Rear cover (37" and 42" models)

1. Disconnect all connectors (3) from the Ambient Light inverter panels.
2. Remove all screws (4) around the edges of the rear cover.
3. Remove all screws (5) from the rear cover.
4. Lift the rear cover from the set. Make sure that wires and flat foils are not damaged during the removal.

4.3.3 NXT Speakers

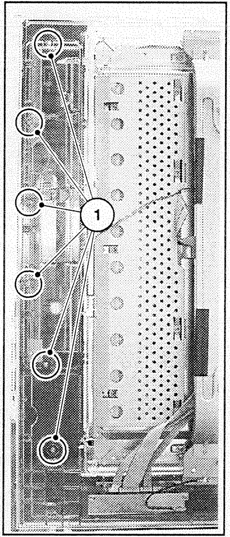

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Figure 4-8 Speaker mounting screws at the rear side

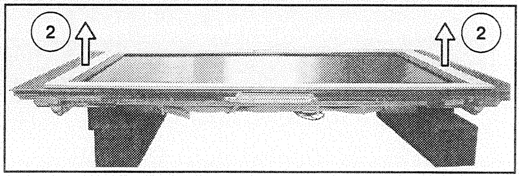

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Figure 4-9 Front cover removal

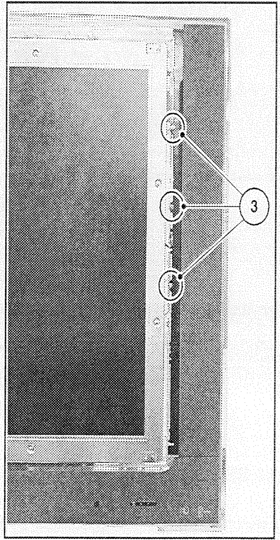

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Figure 4-10 Speaker mounting screws at the front side

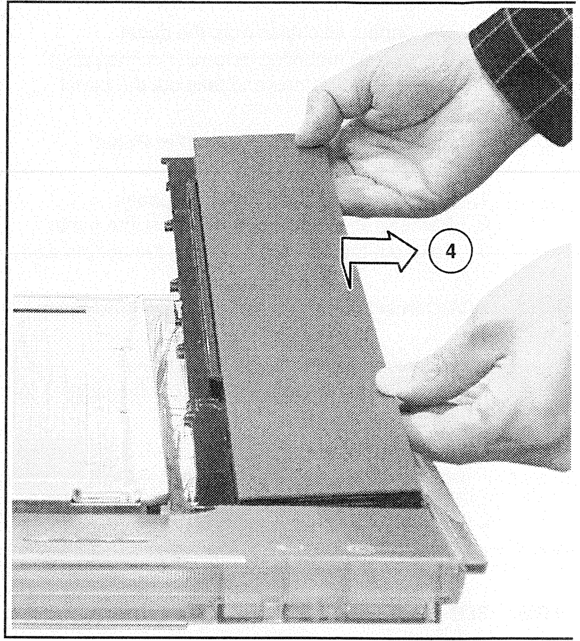

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Figure 4-11 Speaker removal

1. Remove all speakers mounting screws [1] at the rear side of the set (one screw is located under the Card reader / Side I/O).
2. Flip the set over (**be aware that the front cover is loose now**), and remover the front cover [2].
3. Remove all speakers mounting screws [3] at the LCD side.
4. Release the speaker cable from its fixations
5. Take out the speaker unit [4].

4.3.4 Ambient Light Inverter Panel(s)

These models are equipped with **two** AmbiLight Inverters.

1. Disconnect all cables at the Inverter panels.
2. Remove all mounting screws from the panels.
   - For the 32" model, the panels are mounted on the metal frame. It might be necessary to remove the mounting bars first as they cover these screws partly.
   - For the 37" and 42" models, the panels are mounted inside the rear cover.
3. Take out the panel.

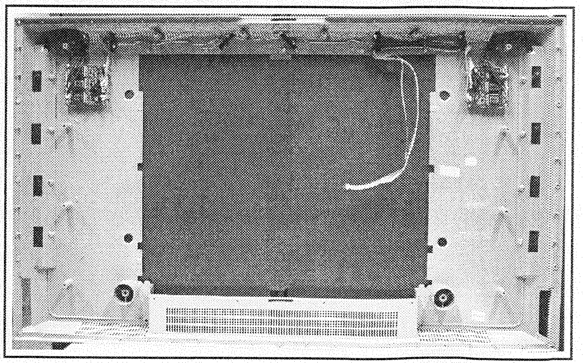

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Figure 4-12 Ambilight inverter panels (37" and 42")

4.3.5 Top Control

1. Disconnect all cables from the panel.
2. Remove all mounting screws from the panel.
3. Release the clamps and take out the panel.

4.3.6 Stand-by Supply / Audio Amplifier Panel

1. Disconnect all cables from the panel.
2. Remove all mounting screws from the panel.
3. Take out the panel (it hinges at the bottom side).

4.3.7 DC/DC Interface Panel (only for 32” model)

1. Disconnect all cables from the panel.
2. Release the clamps and take out the panel.

4.3.8 Main Supply Panel

1. Disconnect all cables from the panel.
2. Remove all mounting screws from the panel.
3. Take out the panel (it hinges at the right side).

4.3.9 SSB

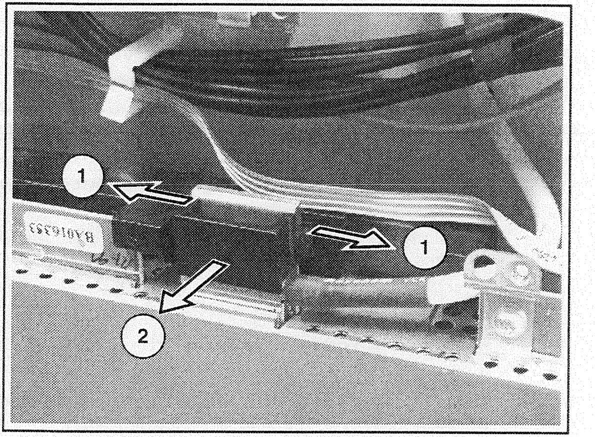

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Figure 4-13 LVDS connector locking bracket

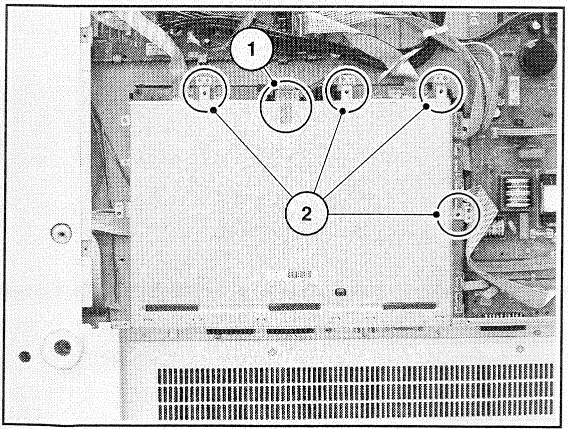

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Figure 4-14 SSB top shielding screws

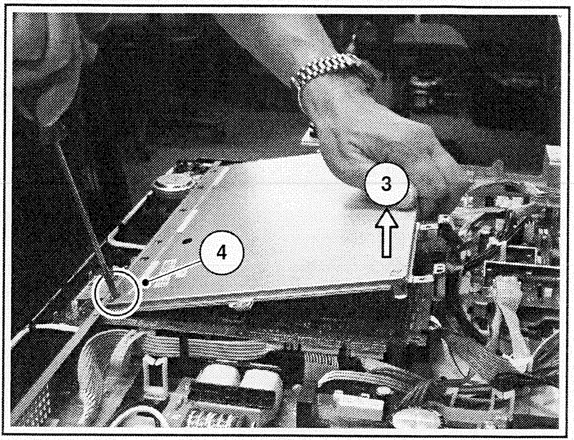

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Figure 4-15 SSB top shielding

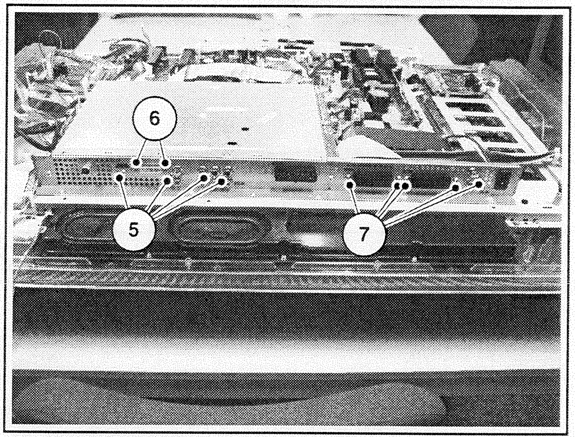

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Figure 4-16 Connector plate

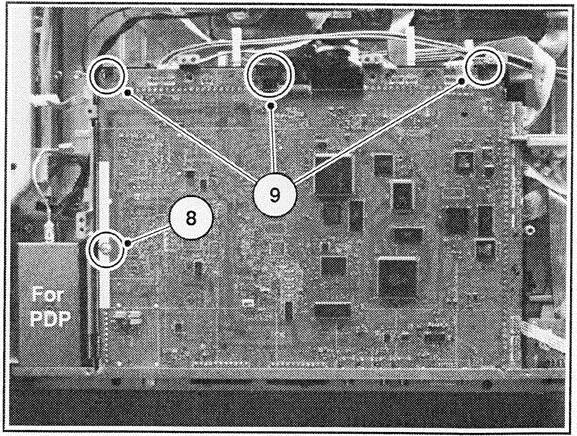

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Figure 4-17 SSB brackets

1. 1st Figure: Remove the LVDS connector locking bracket [1], [2].
2. 2nd Figure: Remove all shielding fixing screws [2].
3. 3rd Figure: Slide, and lift the shielding at the top [3] (**Note:** in some cases a piece of tape is used at the left underside of the SSB. This tape must be cut or removed before you can lift the shielding). The panel hinges at the SCART side.

At the same time, use a screwdriver to carefully prize the shielding at the bottom side [4], and remove the shielding. The SSB is now accessible.

4. To remove the whole SSB, unscrew all connector fixing screws from the connector plate [5] + [6] + [7]. Use a 5 mm socket screwdriver to remove both DVI connector distance bolts [6].
5. Disconnect the LVDS cable, and all other cables.
6. Remove the mounting screw [8] from the SSB.
7. Bend the brackets [9] away (may require some force), lift the SSB, and take it out.

4.3.10 SCART Panel

1. Disconnect all cables from the panel.
2. Remove the mounting screws [7] beside the SCART connectors at the connector plate (see figure" Connector plate").
3. Take out the SCART panel.

4.3.11 Digital Media Reader

1. Disconnect the USB cable at the SSB and the power line at the Stand-by/Audio panel.
2. Remove all mounting screws from the module.
3. Take out the module (replace complete module if defect).

4.3.12 LED Panel

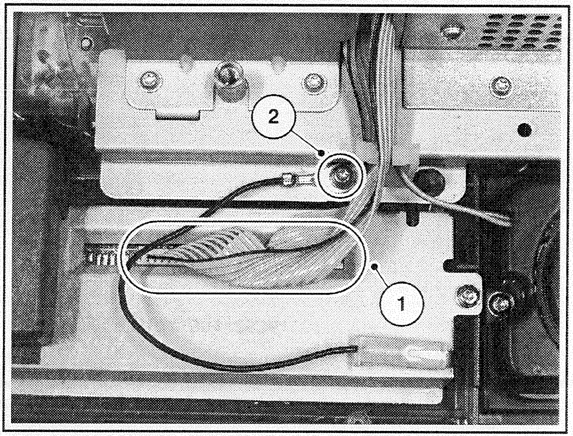

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Figure 4-18 LED panel (part 1)

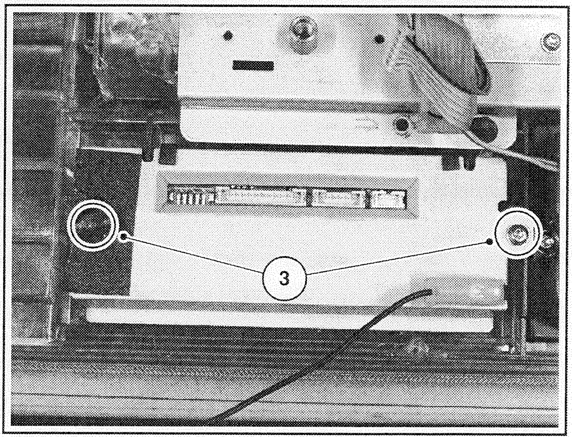

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Figure 4-19 LED panel (part 2)

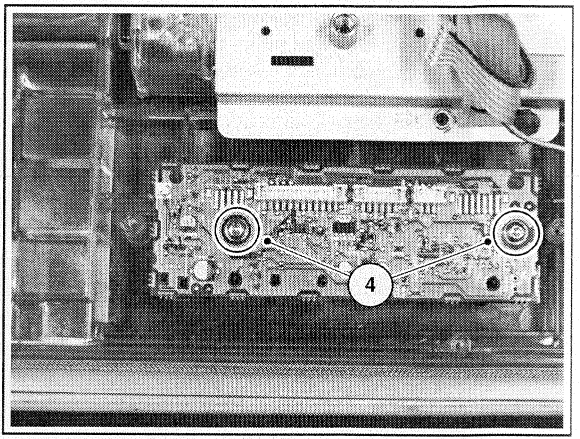

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Figure 4-20 LED panel (part 3)

1. Disconnect all cables from the LED panel [1][2].
2. To access the mounting screws you have to remove the Digital Media Reader.
3. Remove the shielding mounting screws [3]: one of them is hidden under a piece of tape.
4. Take out the panel.

4.3.13 Woofer

1. Remove all mounting screws.
2. Take out the woofer unit together with its cable. **Caution:** the woofer unit must remain airtight.

4.3.14 Side I/O Panel

1. Disconnect all cables from the panel.
2. Remove all mounting screws (if present) from the panel.
3. Slide the bracket to the right.
4. Release the clamp and take out the panel.

4.4 Display Disassembly

Important: Be sure to work in a dust free environment during the following activities. In addition, the use of (fabric) hand gloves is advised.

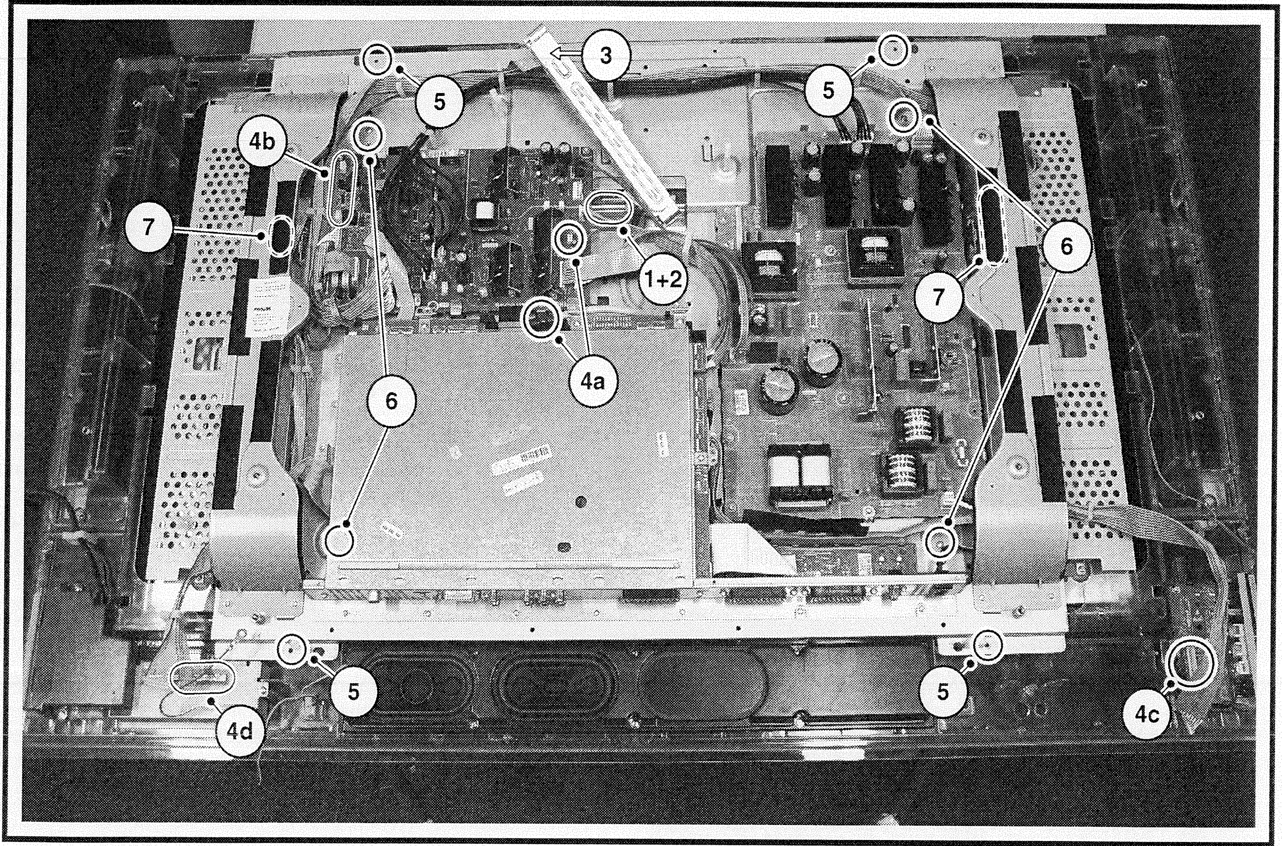

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Figure 4-21 Cable disconnecting overview

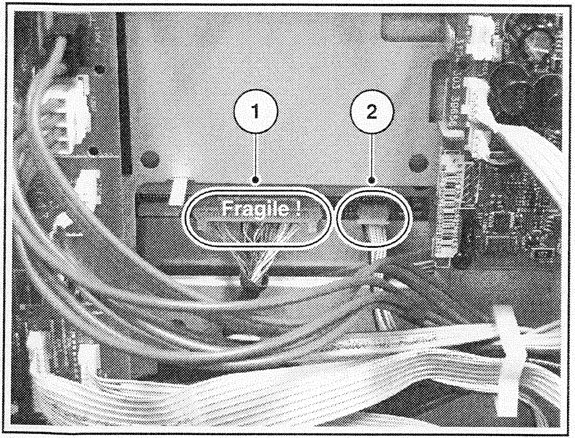

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Figure 4-22 LCD display connectors

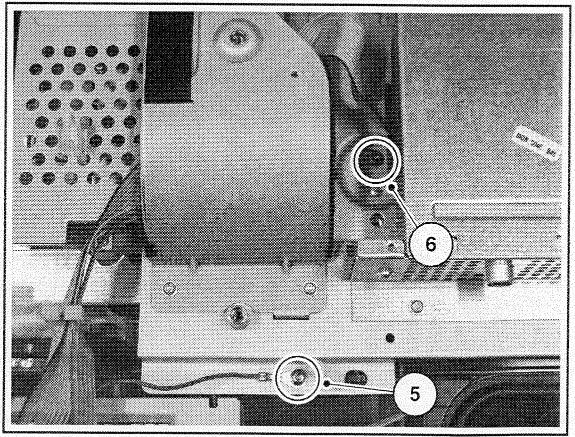

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Figure 4-23 LCD panel screws location

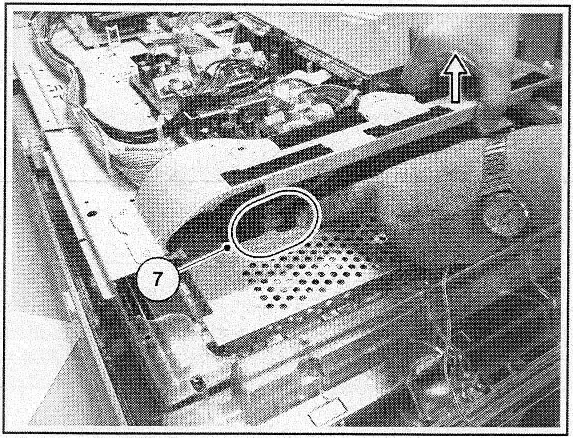

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Figure 4-24 Backlight cable removal (left side)

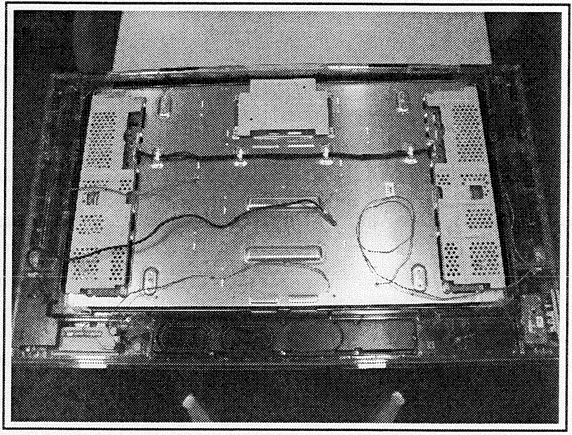

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Figure 4-25 Chassis after PWB frame removal

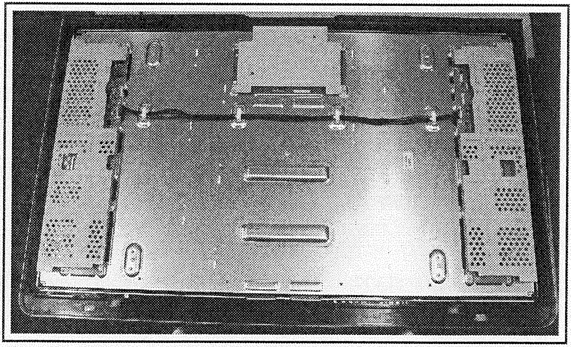

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Figure 4-26 Bare LCD panel (37") after plastic frame removal

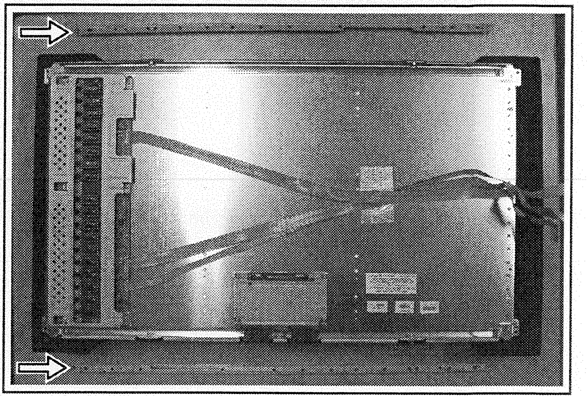

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Figure 4-27 Metal fixation bars 32" model

1. **Important:** Unplug the cables [1] + [2] at the LCD display (cable [2] is only present in 32" models). **Be careful**, as the LVDS connector [1] is very fragile!
2. Remove the Top Control ass'y [3]. No need to unplug.
3. Unplug the following cables **and remove them completely from their cable fixations**:
   - Card reader cable (USB with supply) at SSB [4a].
   - Speaker cables (L, R, and woofer) at SA panel [4b].
   - Flat cable on Side I/O panel [4c].
   - Flat cable on LED panel [4d].
4. Remove all T10 screws [5] from the mounting frame.
5. Remove all T20 mounting LCD panel screws [6].
6. Lift the metal frame (together with all PWBs) from the LCD panel. During lift, free the backlight cables [7].
7. After removal of the metal frame, you can lift the plastic frame from the set.
8. Now, the bare LCD panel is accessible.
   Important: On the 32" LCD display two metal fixation bars are mounted at the top and bottom side (see figure "Metal fixation bars 32" model"). These must be removed before sending the display to Service if the display is defective.

4.5 Set Re-assembly

To re-assemble the whole set, execute all processes in reverse order.

Note: While re-assembling the TV, make sure that:
- All cables are placed and connected in their original position (see figure "Chassis cable dressing" in the beginning of this chapter and/or the "Wiring Diagram" in chapter 6).
- LVDS connector (SSB) is secured with plastic clamp.
- The "grounding" wire between metal shielding of the LED panel and the TV frame is connected.

5. Service Modes, Error Codes, and Fault Finding

Index of this chapter:

5.1 Test Points
5.2 Service Modes
5.3 Stepwise Start-up
5.4 Service Tools
5.5 Error Codes
5.6 The Blinking LED Procedure
5.7 Protections
5.8 Fault Finding and Repair Tips
5.9 Software Upgrading

5.1 Test Points

The chassis is equipped with test points (Fxxx) printed on the circuit board assemblies. As most signals are digital, it will be difficult to measure waveforms with a standard oscilloscope. Several key ICs are capable of generating test patterns, which can be controlled via ComPair. In this way it is possible to determine which part is defective.

Perform measurements under the following conditions:
- Service Default Mode.
- Video: Colour bar signal.
- Audio: 3 kHz left, 1 kHz right.

5.2 Service Modes

Service Default mode (SDM) and Service Alignment Mode (SAM) offers several features for the service technician, while the Customer Service Mode (CSM) is used for communication between the call centre and the customer.

This chassis also offers the option of using ComPair, a hardware interface between a computer and the TV chassis. It offers the abilities of structured troubleshooting, error code reading, and software version read-out for all chassis. *Minimum requirements for ComPair:* a Pentium processor, a Windows OS, and a CD-ROM drive (see also paragraph "ComPair").

5.2.1 Service Default Mode (SDM)

Purpose
- To create a pre-defined setting, to get the same measurement results as given in this manual.
- To override SW protections (only applicable for protections detected by stand-by processor) and make the TV start up to the step just before protection (a sort of automatic stepwise start up). See paragraph "Stepwise Start Up".
- To start the blinking LED procedure (not valid in protection mode).

Specifications

Table 5-1 SDM default settings

Region	Freq. (MHz)	Default system
Europe, AP-PAL/Multi	475.25	PAL B/G
NAFTA, AP-NTSC, LATAM	61.25 (ch. 3)	NTSC M

- All picture settings at 50% (brightness, colour, contrast).
- All sound settings at 50%, except volume at 25%.
- All service-unfriendly modes (if present) are disabled, like:
  - (Sleep) timer.
  - Child/parental lock.
  - Picture mute (blue mute or black mute).
  - Automatic volume levelling (AVL).
  - Auto switch "off" (when no video signal was received for 10 minutes).
  - Skip/blank of non-favourite pre-sets.
  - Smart modes.
  - Auto store of personal presets.
  - Auto user menu time-out.

How to Activate SDM
Use one of the following methods:
- Use the standard RC-transmitter and key in the code "062596", directly followed by the "MENU" button.
  Note: It is possible that, together with the SDM, the main menu will appear. To switch it "off", push the "MENU" button again.
- Short for a moment the two solder pads [1] on the SSB, with the indication "SDM". They are located outside the shielding. Activation can be performed in all modes, except when the set has a problem with the Stand-by Processor. See figure "Service mode pads".

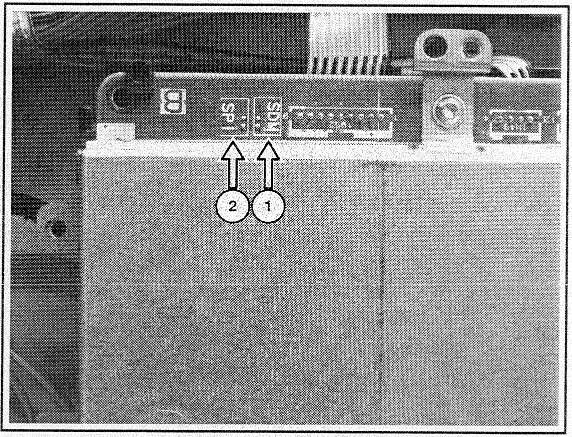

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Figure 5-1 Service mode pads

After activating this mode, "SDM" will appear in the upper right corner of the screen (if you have a picture).

How to Navigate
When you press the "MENU" button on the RC transmitter, the set will toggle between the SDM and the normal user menu (with the SDM mode still active in the background).

How to Exit SDM
Use one of the following methods:
- Switch the set to STAND-BY via the RC-transmitter.
- Via a standard customer RC-transmitter: key in "00"-sequence.

5.2.2 Service Alignment Mode (SAM)

Purpose
- To perform (software) alignments.
- To change option settings.
- To easily identify the used software version.
- To view operation hours.
- To display (or clear) the error code buffer.

How to Activate SAM
Via a standard RC transmitter: key in the code "062596" directly followed by the "INFO" button. After activating SAM with this method a service warning will appear on the screen, you can continue by pressing the red button on the RC.

Contents of SAM:

- **Hardware Info.**
  - **A. VIPER SW Version.** Displays the software version of the VIPER software (main software) (**example:** JX21E-1.2.3.4_12345 = AAAAB_X.Y.W.Z_NNNNN).
    - **AAAA**= the chassis name.
    - **B**= the region: A= AP, E= EU, L= LatAm, U = US.
    - **X.Y.W.Z**= the software version, where X is the main version number (different numbers are not compatible with one another) and Y is the sub version number (a higher number is always compatible with a lower number). The last two digits are used for development reasons only, so they will always be zero in official releases.
    - **NNNNN**= last five digits of 12nc code of the software.
  - **B. SBY PROC Version.** Displays the software version of the stand-by processor.
  - **C. Production Code.** Displays the production code of the TV, this is the serial number as printed on the back of the TV set. Note that if an NVM is replaced or is initialized after corruption, this production code has to be re-written to NVM. ComPair will foresee in a possibility to do this.
- **Operation Hours.** Displays the accumulated total of operation hours (not the stand-by hours). Every time the TV is switched "on/off", 0.5 hours is added to this number.
- **Errors.** (Followed by maximal 10 errors). The most recent error is displayed at the upper left (for an error explanation see paragraph “Error Codes”).
- **Defective Module.** Here the module that generates the error is displayed. If there are multiple errors in the buffer, which are not all generated by a single module, there is probably another defect. It will then display the message “UNKNOWN” here.
- **Reset Error Buffer.** When you press “cursor right” and then the “OK” button, the error buffer is reset.
- **Alignments.** This will activate the “ALIGNMENTS” sub-menu.
- **Dealer Options.** Extra features for the dealers.
- **Options.** Extra features for Service.
- **Initialise NVM.** When an NVM was corrupted (or replaced) in the former EMG based chassis, the microprocessor replaces the content with default data (to assure that the set can operate). However, all preferences and alignment values are gone now, and option numbers are not correct. Therefore, this was a very drastic way. In this chassis, the procedure is implemented in another way: The moment the processor recognizes a corrupted NVM, the “initialize NVM” line will be highlighted. Now, you can do two things (dependent of the service instructions at that moment):
  - Save the content of the NVM via ComPair for development analysis, **before** initializing. This will give the Service department an extra possibility for diagnosis (e.g. when Development asks for this).
  - Initialize the NVM (same as in the past, however now it happens conscious).

Note: When you have a corrupted NVM, or you have replaced the NVM, there is a high possibility that you will not have picture any more because your display option is not correct. So, before you can initialize your NVM via the SAM, you need to have picture and therefore you need the correct display option. To adapt this option, you can use ComPair (the correct HEX values for the options can be found in the table below) or a new method via a standard RC (described below).

Changing the display option via a standard RC:
Key in the code “062598” directly followed by the “MENU” button and “XXX” (where XXX is the 3 digit decimal display option code as mentioned in the first column of the next table). Make sure to key in all three digits, also the leading zero’s.
If the above action is successful, the front LED will go out as an indication that the RC sequence was correct.
After the display option is changed in the NVM, the TV will go to the Stand-by mode.
If the NVM was corrupted or empty before this action, it will be initialised first (loaded with default values). This initialising can take up to 20 seconds.

Table 5-2 Display option code overview

Display Option	HEX	Display Type	Size	Vertical Resolution
000	00	PDP SDI HD V3	42”	768p
001	01	PDP SDI HD V3	50”	768p
002	02	PDP FHP ALiS 1024i	42”	1024i
003	03	LCD LPL	30”	768p
004	04	LCD LPL	37”	768p
005	05	LCD LPL	42”	768p
006	06	LCD SHARP	32”	768p
007	07	PDP SDI SD V3	42”	480p
008	08	PDP FHP ALiS 1024i	37”	1024i
009	09	LCOS XION	-	720p
010	0A	LCD AUO	30”	768p
011	0B	LCD LPL	32”	768p
012	0C	LCD AUO	32”	768p
013	0D	LCD SHARP	37”	768p
014	0E	LCD LPL HD	42”	1080p
015	0F	PDP SDI SD	37”	480p
016	10	PDP FHP ALiS 1080i	37”	1080i
017	11	PDP FHP ALiS 580i	42”	1080i
018	12	PDP FHP	55”	768p
019	13	LCOS VENUS	-	720p
020	14	LCOS VENUS	-	1080p
021	15	LCD LPL	26”	768p
022	16	LCD LPL scanning Backlight	32”	768p
023	17	PDP LG SD	42”	480p
024	18	PDP SDI SD V4	42”	480p
025	19	PDP SDI HD V4	42”	768p
026	1A	PDP FHP HD A2	42”	1024i
027	1B	PDP SDI HD V4	50”	768p
028	1C	LCD Sharp full HD	37”	1080p
029	1D	LCD AUO	32”	768p
030	1E	LCD CMO full HD	37”	1080p
031	1F	LCD Sharp full HD V3.0	37”	1080p
032	20	LCD LPL	20”	768p
033	21	LCD QDI	23”	768p

- **Store.** All options and alignments are stored when pressing “cursor right” and then the “OK”-button
- **SW Maintenance.**
  - **SW Events.** Not useful for Service purposes. In case of specific software problems, the development department can ask for this info.
  - **HW Events.** Not useful for Service purposes. In case of specific software problems, the development department can ask for this info.

How to Navigate

- In SAM, you can select the menu items with the “CURSOR UP/DOWN” key on the RC-transmitter. The selected item will be highlighted. When not all menu items fit on the screen, move the “CURSOR UP/DOWN” key to display the next/previous menu items.
- With the “CURSOR LEFT/RIGHT” keys, it is possible to:
  - (De) activate the selected menu item.
  - (De) activate the selected sub menu.

How to Exit SAM

Use one of the following methods:

- Press the “MENU” button on the RC-transmitter.
- Switch the set to STAND-BY via the RC-transmitter.

5.2.3 Customer Service Mode (CSM)

Purpose

When a customer is having problems with his TV-set, he can call his dealer or the Customer Helpdesk. The service technician can then ask the customer to activate the CSM, in order to identify the status of the set. Now, the service technician can judge the severity of the complaint. In many cases, he can advise the customer how to solve the problem, or he can decide if it is necessary to visit the customer.
The CSM is a read only mode; therefore, modifications in this mode are not possible.

How to Activate CSM

Key in the code "123654" via the standard RC transmitter.

Note: Activation of the CSM is only possible if there is no (user) menu on the screen!

How to Navigate

By means of the "CURSOR-DOWN/UP" knob on the RC-transmitter, you can navigate through the menus.

Contents of CSM

- **SW Version (example:** JX21E-1.2.3.4_12345**).** Displays the built-in main software version. In case of field problems related to software, software can be upgraded. As this software is consumer upgradeable, it will also be published on the Internet.
- **SBY Processor Version.** Displays the built-in stand-by processor software version. Upgrading this software will be possible via a PC and a ComPair interface (see chapter Software upgrade).
- **Set Type.** This information is very helpful for a helpdesk/workshop as reference for further diagnosis. In this way, it is not necessary for the customer to look at the rear of the TV-set. Note that if an NVM is replaced or is initialized after corruption, this set type has to be re-written to NVM. ComPair will foresee a possibility to do this.
- **Production Code.** Displays the production code (the serial number) of the TV. Note that if an NVM is replaced or is initialized after corruption, this production code has to be re-written to NVM. ComPair will foresee a possibility to do this.
- **Code 1.** Gives the latest five errors of the error buffer. As soon as the built-in diagnose software has detected an error the buffer is adapted. The last occurred error is displayed on the leftmost position. Each error code is displayed as a 2-digit number. When less than 10 errors occur, the rest of the buffer is empty (00). See also paragraph Error Codes for a description.
- **Code 2.** Gives the first five errors of the error buffer. See also paragraph Error Codes for a description.
- **Headphone Volume.** Gives the last status of the headphone volume, as set by the customer. The value can vary from 0 (volume is minimum) to 100 (volume is maximum). Change via "MENU", "TV", "SOUND", "HEADPHONE VOLUME".
- **Dolby.** Indicates whether the received transmitter transmits Dolby sound ("ON") or not ("OFF"). Attention: The presence of Dolby can only be tested by the software on the Dolby Signalling bit. If a Dolby transmission is received without a Dolby Signalling bit, this indicator will show "OFF" even though a Dolby transmission is received.
- **Surround Mode.** Indicates the by the customer selected sound mode (or automatically chosen mode). Possible values are "STEREO" and "VIRTUAL DOLBY SURROUND". Change via "MENU", "TV", "SOUND", "SURROUND MODE". It can also have been selected automatically by signalling bits (internal software).
- **Tuner Frequency.** Indicates the frequency the selected transmitter is tuned to.
- **Digital options.** Indicates the selected digital mode. Possible values are "STANDARD" and "PIXEL PLUS 2" and "MOVIE PLUS". Change via "MENU", "TV", "PICTURE", "DIGITAL OPTIONS".
- **TV System.** Gives information about the video system of the selected transmitter.
  - BG: PAL BG signal received
  - DK: PAL DK signal received
  - L/La: SECAM L/La signal received
  - I: PAL I signal received
  - M: NTSC M signal received
  - ATSC: ATSC signal received
- **Centre Mode.** Not applicable.
- **DNR.** Gives the selected DNR setting (Dynamic Noise Reduction), "OFF", "MINIMUM", "MEDIUM", or "MAXIMUM". Change via "MENU", "TV", "PICTURE", "DNR"
- **Noise Figure.** Gives the noise ratio for the selected transmitter. This value can vary from 0 (good signal) to 127 (average signal) and to 255 (bad signal). For some software versions, the noise figure will only be valid when "Active Control" is set to "medium" or "maximum" before activating CSM.
- **Source.** Indicates which source is used and the video/audio signal quality of the selected source. (Example: Tuner, Video/NICAM) Source: "TUNER", "EXT1", "EXT2", "EXT3", "EXT4", "HDMI", "SIDE" and "DVI". Video signal quality: "VIDEO", "S-VIDEO", "RGB 1FH", "YPBPR 1FH 480P", "YPBPR 1FH 576P", "YPBPR 1FH 1080I", "YPBPR 2FH 480P", "YPBPR 2FH 576P", "YPBPR 2FH 1080I", "RGB 2FH 480P", "RGB 2FH 576P", "RGB 2FH 1080I", "720p" or "Unsupported". Audio signal quality: "STEREO", "SPDIF 1", "SPDIF 2", or "SPDIF".
- **Audio System.** Gives information about the audible audio system. Possible values are "Stereo", "Mono", "Mono selected", "Analog In: No Dig. Audio", "Dolby Digital 1+1", "Dolby Digital 1/0", "Dolby Digital 2/0", "Dolby Digital 2/1", "Dolby Digital 2/2", "Dolby Digital 3/0", "Dolby Digital 3/1", "Dolby Digital 3/2", "Dolby Digital Dual I", "Dolby Digital Dual II", "MPEG 1+1", "MPEG 1/0", "MPEG 2/0". This is the same info as you will see when pressing the "INFO" button in normal user mode (item "signal"). In case of ATSC receiving there will be no info displayed.
- **Tuned Bit.** Indicates if the selected preset is automatically tuned (via "Automatic Installation" in the setup menu) or via the automatic tuning system of the TV. In this case "Tuned bit" will show "YES". If the TV was not able to auto-tune to the correct frequency, this item will show "NO". So if "NO" is displayed, it could indicate that the customer has manually tuned to a frequency which was too for to a correct frequency, that the TV was not able to auto-tune any more.
- **On timer.** Indicates if the "On timer" is set "ON" or "OFF" and when it is set to "ON", also start time, start day and program number is displayed. Change via "MENU", "TV", "FEATURES", "ON TIMER".
- **Preset Lock.** Indicates if the selected preset has a child lock: "LOCKED" or "UNLOCKED". Change via "MENU", "TV", "FEATURES", "CHILD LOCK" and "CUSTOM LOCK" and "CHANNEL LOCK".
- **Child lock.** Indicates if "Child lock" is set to "UNLOCK", "LOCKED" or "CUSTOM LOCK. Change via "MENU", "TV", "FEATURES", "CHILD LOCK".
- **Lock after.** Indicates at what time the channel lock is set: "OFF" or e.g. "18:45" (lock time). Change via "MENU", "TV", "FEATURES", "CHILD LOCK", "CUSTOM LOCK" and "LOCK AFTER".
- **Options 1.** Gives the option codes of option group 1 as set in SAM (Service Alignment Mode).
- **Options 2.** Gives the option codes of option group 2 as set in SAM (Service Alignment Mode).
- **AVL.** Indicates the last status of AVL (Automatic Volume Level): "ON" or "OFF". Change via "MENU", "TV", "SOUND", "AVL". AVL can not be set in case of digital audio reception (e.g. Dolby Digital or AC3)
- **Delta Volume.** Indicates the last status of the delta volume for the selected preset as set by the customer: from "-12"

to "+12". Change via "MENU", "TV", "SOUND", "DELTA VOLUME".

- **HDMI key validity.** Indicates the key's validity.

How to Exit CSM

Press any key on the RC-transmitter (with exception of the "CHANNEL +/-", "VOLUME", "MUTE" and digit (0-9) keys).

5.3 Stepwise Start-up

The stepwise start-up method, as known from FTL/FTP sets (EMG based sets) is not valid any more. The situation for this chassis is as follows: when the TV is in a protection state detected via the Stand-by Processor (and thus blinking an error) **and** SDM is activated via shortcutting the pins on the SSB, the TV starts up until it reaches the situation just before protection. So, this is a kind of automatic stepwise start-up. In combination with the start-up diagrams below, you can see which supplies are present at a certain moment.
Important to know here is, that if e.g. the 3V3 detection fails (and thus error 11 is blinking) **and** the TV is restarted via SDM, the Stand-by Processor will enable the 3V3, but will not go to protection now. The TV will stay in this situation until it is reset (Mains/AC Power supply interrupted).

The abbreviations "SP" and "MP" in the figures stand for:

- SP: protection or error detected by the **S**tand-by **P**rocessor.
- MP: protection or error detected by the VIPER **M**ain **P**rocessor.

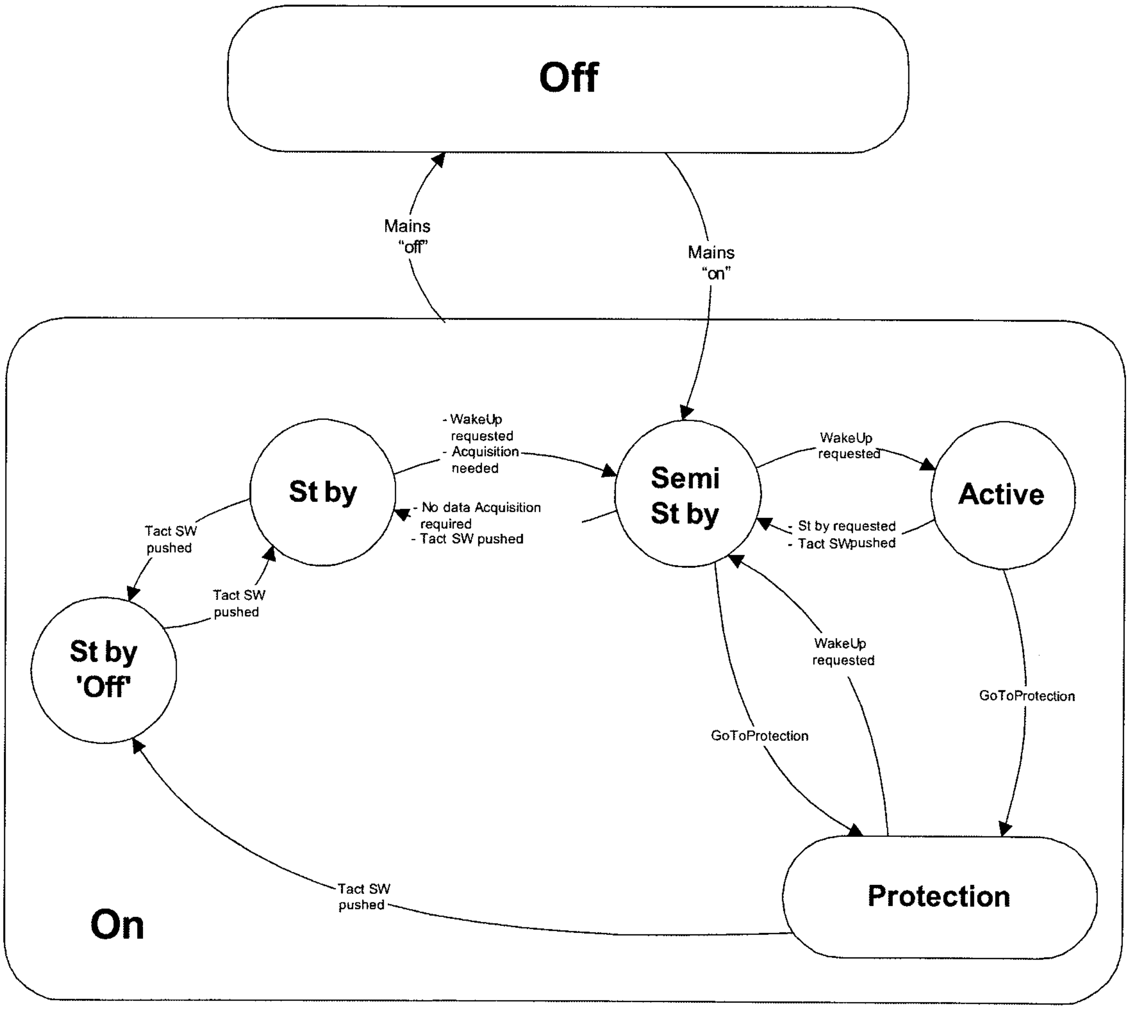
Off
Mains "off"
Mains "on"
St by
- WakeUp requested
- Acquisition needed
- No data Acquisition required
- Tact SW pushed
Semi St by
WakeUp requested
- St by requested
- Tact SW pushed
Active
Tact SW pushed
Tact SW pushed
St by 'Off'
WakeUp requested
GoToProtection
GoToProtection
Tact SW pushed
Protection
On

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Figure 5-2 Transition diagram

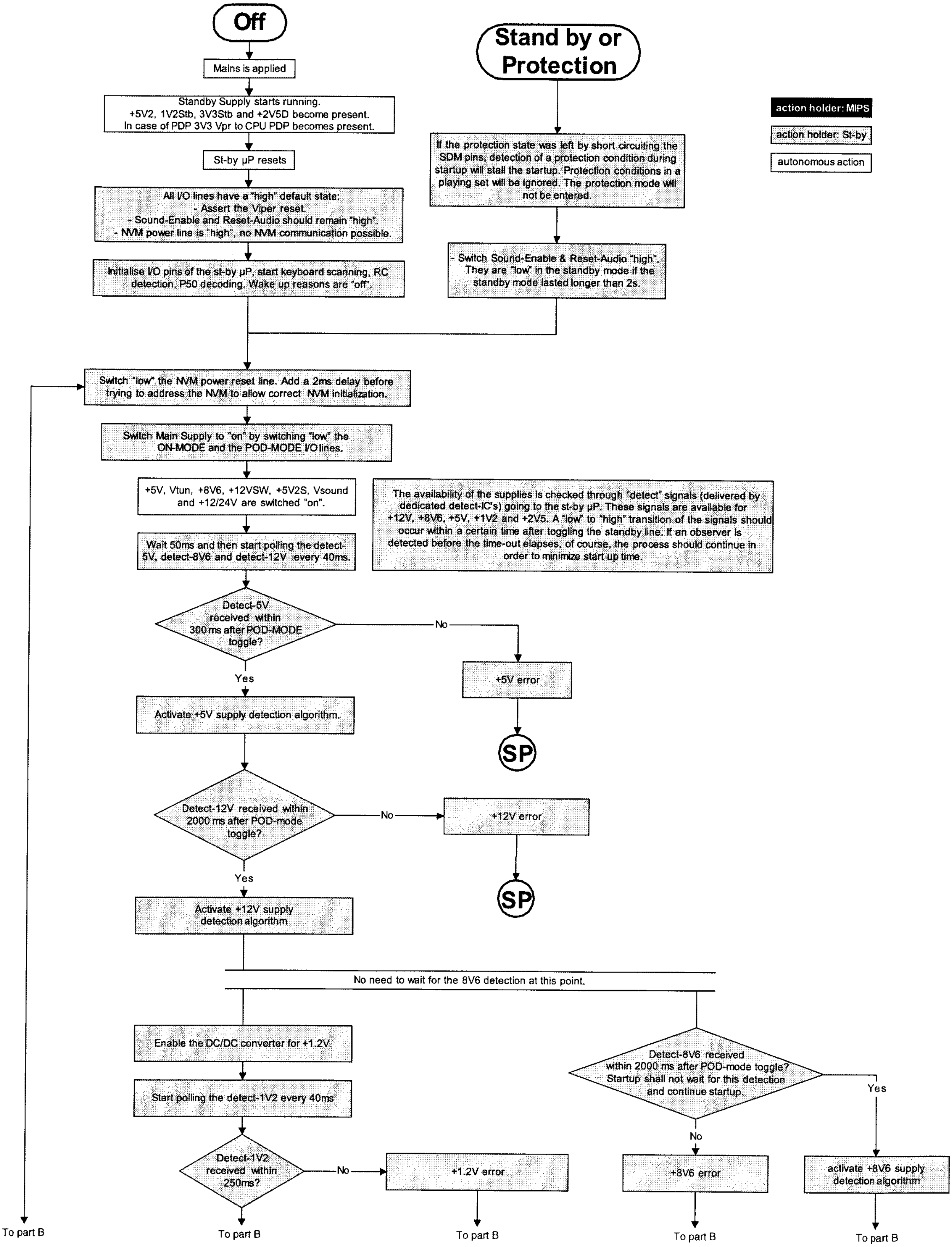
Off
Mains is applied
Standby Supply starts running.
+5V2, 1V2Stb, 3V3Stb and +2V5D become present.
In case of PDP 3V3 Vpr to CPU PDP becomes present.
St-by µP resets
All I/O lines have a "high" default state:
- Assert the Viper reset.
- Sound-Enable and Reset-Audio should remain "high".
- NVM power line is "high", no NVM communication possible.
Initialise I/O pins of the st-by µP, start keyboard scanning, RC detection, P50 decoding. Wake up reasons are "off".
Stand by or Protection
If the protection state was left by short circuiting the SDM pins, detection of a protection condition during startup will stall the startup. Protection conditions in a playing set will be ignored. The protection mode will not be entered.
- Switch Sound-Enable & Reset-Audio "high". They are "low" in the standby mode if the standby mode lasted longer than 2s.
action holder: MIPS
action holder: St-by
autonomous action
Switch "low" the NVM power reset line. Add a 2ms delay before trying to address the NVM to allow correct NVM initialization.
Switch Main Supply to "on" by switching "low" the ON-MODE and the POD-MODE I/O lines.
+5V, Vtun, +8V6, +12VSW, +5V2S, Vsound and +12/24V are switched "on".
The availability of the supplies is checked through "detect" signals (delivered by dedicated detect-IC's) going to the st-by µP. These signals are available for +12V, +8V6, +5V, +1V2 and +2V5. A "low" to "high" transition of the signals should occur within a certain time after toggling the standby line. If an observer is detected before the time-out elapses, of course, the process should continue in order to minimize start up time.
Wait 50ms and then start polling the detect-5V, detect-8V6 and detect-12V every 40ms.
Detect-5V received within 300 ms after POD-MODE toggle?
No
+5V error
SP
Yes
Activate +5V supply detection algorithm.
Detect-12V received within 2000 ms after POD-mode toggle?
No
+12V error
SP
Yes
Activate +12V supply detection algorithm
No need to wait for the 8V6 detection at this point.
Enable the DC/DC converter for +1.2V.
Start polling the detect-1V2 every 40ms
Detect-1V2 received within 250ms?
No
+1.2V error
Detect-8V6 received within 2000 ms after POD-mode toggle? Startup shall not wait for this detection and continue startup.
Yes
No
+8V6 error
activate +8V6 supply detection algorithm
To part B
To part B
To part B
To part B
To part B

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Figure 5-3 "Off" to "Semi Stand-by" flowchart (part 1)

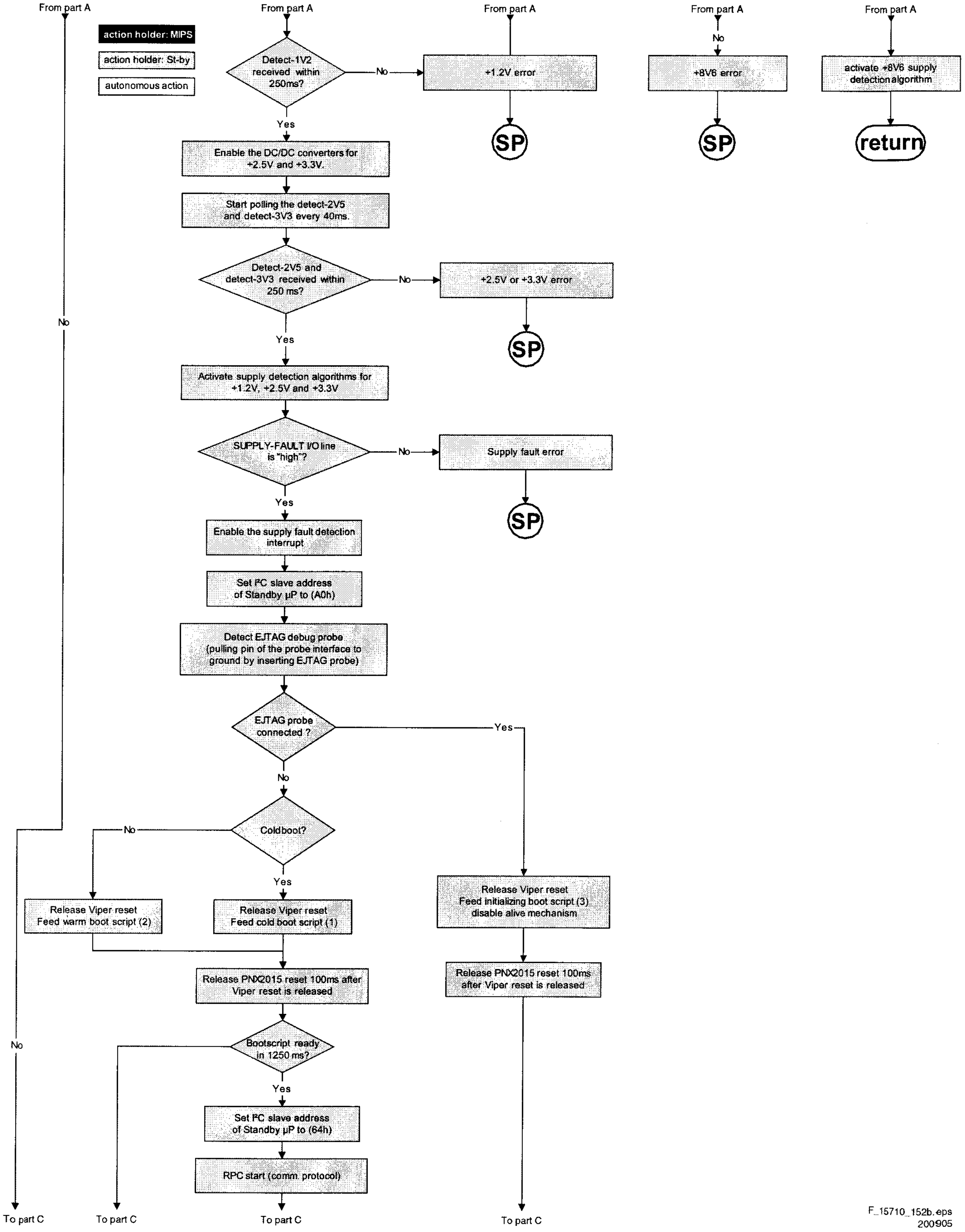
From part A
From part A
From part A
From part A
From part A
action holder: MIPS
action holder: St-by
autonomous action
Detect-1V2 received within 250ms?
No
+1.2V error
SP
No
+8V6 error
SP
activate +8V6 supply detection algorithm
return
Yes
Enable the DC/DC converters for +2.5V and +3.3V.
Start polling the detect-2V5 and detect-3V3 every 40ms.
Detect-2V5 and detect-3V3 received within 250 ms?
No
+2.5V or +3.3V error
SP
No
Yes
Activate supply detection algorithms for +1.2V, +2.5V and +3.3V
SUPPLY-FAULT I/O line is "high"?
No
Supply fault error
SP
Yes
Enable the supply fault detection interrupt
Set I²C slave address of Standby µP to (A0h)
Detect EJTAG debug probe (pulling pin of the probe interface to ground by inserting EJTAG probe)
EJTAG probe connected ?
Yes
No
Coldboot?
No
Yes
Release Viper reset Feed warm boot script (2)
Release Viper reset Feed cold boot script (1)
Release Viper reset Feed initializing boot script (3) disable alive mechanism
Release PNX2015 reset 100ms after Viper reset is released
Release PNX2015 reset 100ms after Viper reset is released
No
Bootscript ready in 1250 ms?
Yes
Set I²C slave address of Standby µP to (64h)
RPC start (comm. protocol)
To part C
To part C
To part C
To part C

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Figure 5-4 "Off" to "Semi Stand-by" flowchart (part 2)

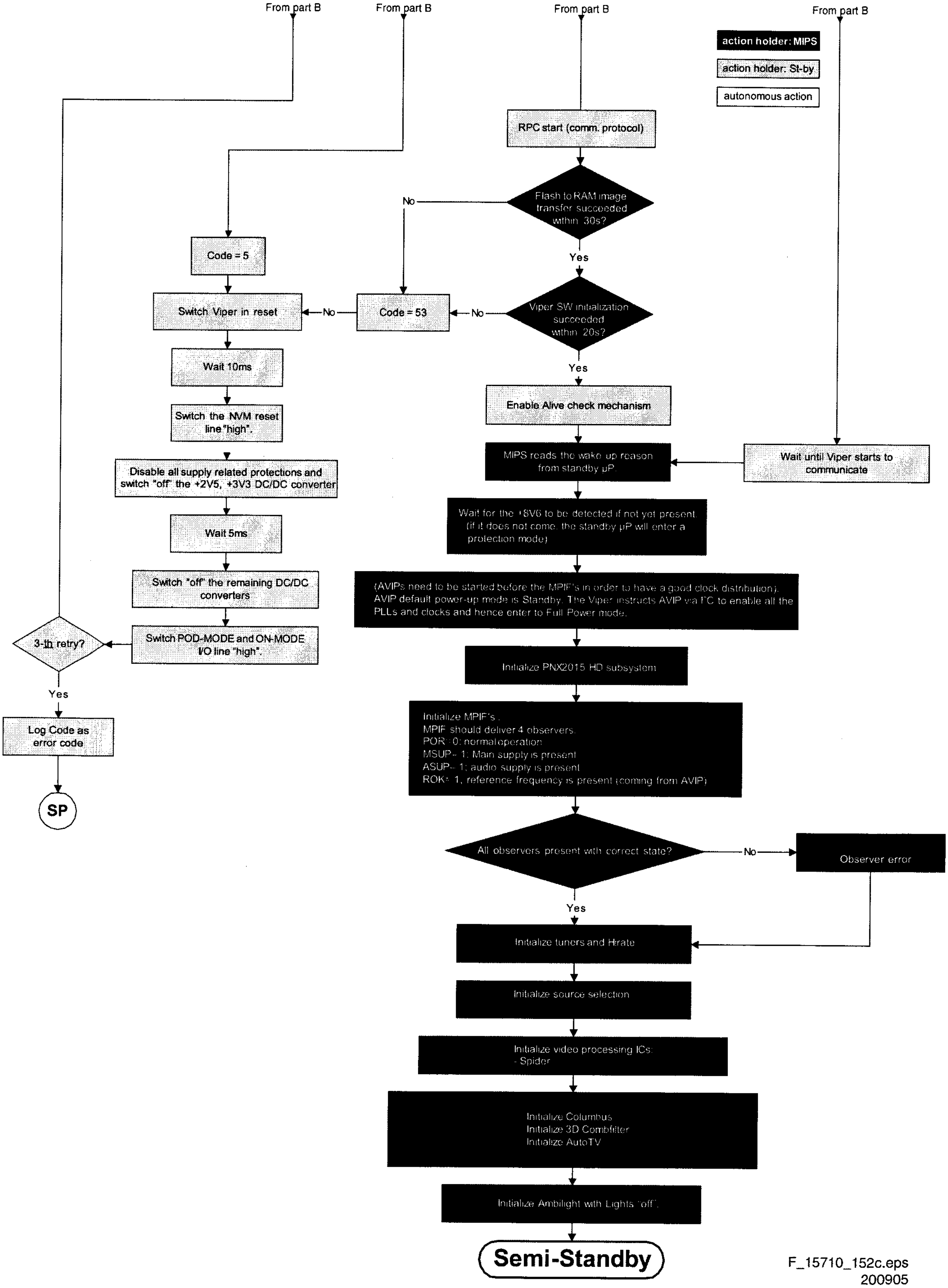
From part B
From part B
From part B
From part B
action holder: MIPS
action holder: St-by
autonomous action
RPC start (comm. protocol)
Flash to RAM image transfer succeeded within 30s?
No
Yes
Code = 5
Switch Viper in reset
No
Code = 53
No
Viper SW initialization succeeded within 20s?
Yes
Wait 10ms
Switch the NVM reset line "high".
Enable Alive check mechanism
MIPS reads the wake up reason from standby µP.
Wait until Viper starts to communicate
Disable all supply related protections and switch "off" the +2V5, +3V3 DC/DC converter
Wait 5ms
Wait for the +8V6 to be detected if not yet present. (if it does not come, the standby µP will enter a protection mode)
Switch "off" the remaining DC/DC converters
(AVIPs need to be started before the MPIF's in order to have a good clock distribution). AVIP default power-up mode is Standby. The Viper instructs AVIP via I^{2}C to enable all the PLLs and clocks and hence enter to Full Power mode.
3-th retry?
Switch POD-MODE and ON-MODE I/O line "high".
Initialize PNX2015 HD subsystem
Yes
Log Code as error code
Initialize MPIF's .
MPIF should deliver 4 observers.
POR=0: normal operation
MSUP=1: Main supply is present
ASUP=1; audio supply is present
ROK=1, reference frequency is present (coming from AVIP)
SP
All observers present with correct state?
No
Observer error
Yes
Initialize tuners and Hrate
Initialize source selection
Initialize video processing ICs:
- Spider
Initialize Columbus
Initialize 3D Combfilter
Initialize AutoTV
Initialize Ambilight with Lights "off".
Semi-Standby
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Figure 5-5 “Off” to “Semi Stand-by” flowchart (part 3)

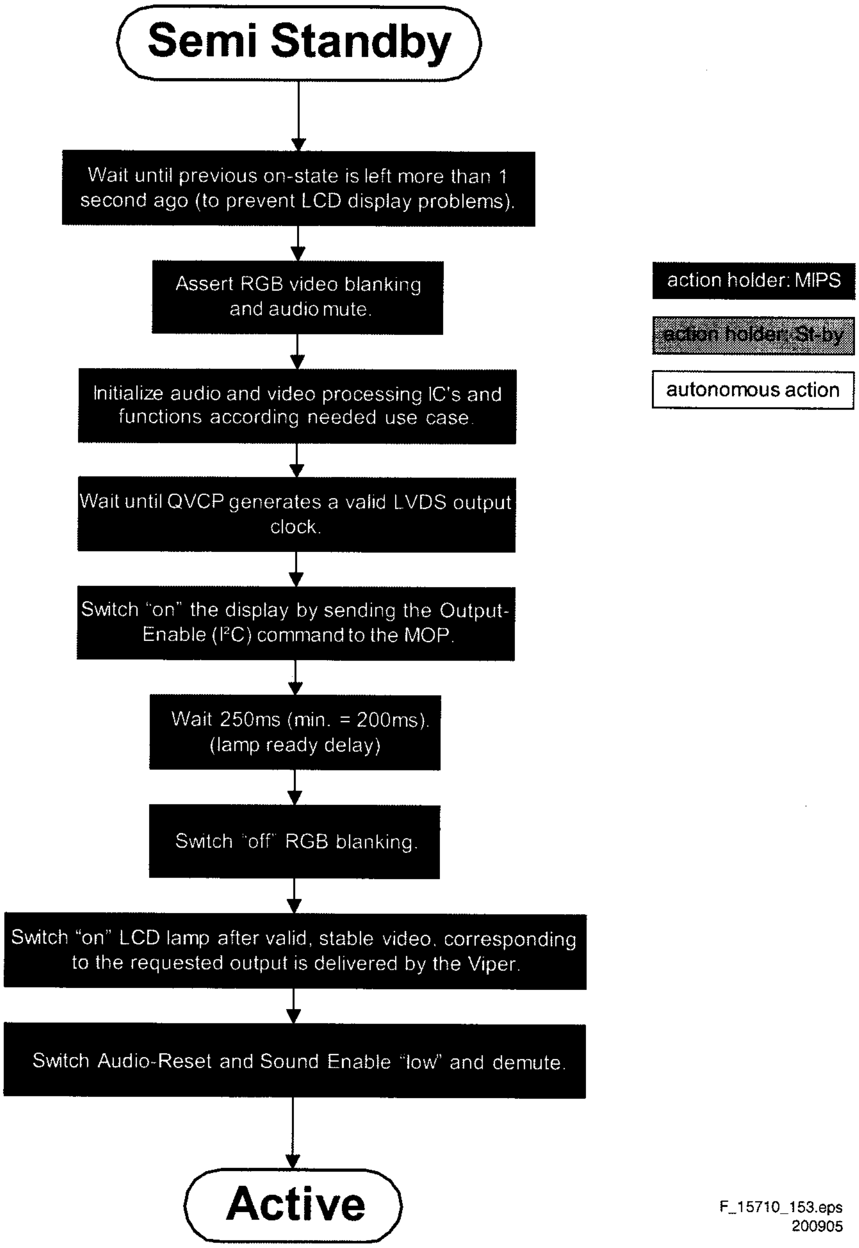
Semi Standby
Wait until previous on-state is left more than 1 second ago (to prevent LCD display problems).
Assert RGB video blanking and audio mute.
Initialize audio and video processing IC's and functions according needed use case.
Wait until QVCP generates a valid LVDS output clock.
Switch "on" the display by sending the Output-Enable (I²C) command to the MOP.
Wait 250ms (min. = 200ms). (lamp ready delay)
Switch "off" RGB blanking.
Switch "on" LCD lamp after valid, stable video, corresponding to the requested output is delivered by the Viper.
Switch Audio-Reset and Sound Enable "low" and demute.
Active
action holder: MIPS
action holder: St-by
autonomous action

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Figure 5-6 "Semi Stand-by" to "Active" flowchart

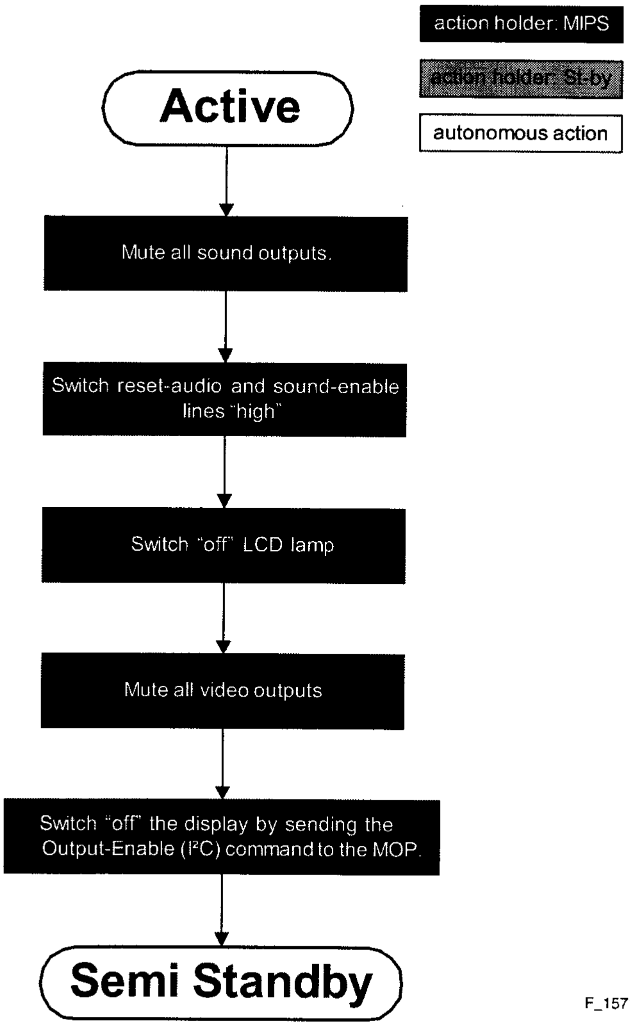
action holder: MIPS
action holder: St-by
autonomous action
Active
Mute all sound outputs.
Switch reset-audio and sound-enable lines "high"
Switch "off" LCD lamp
Mute all video outputs
Switch "off" the display by sending the Output-Enable (I²C) command to the MOP.
Semi Standby

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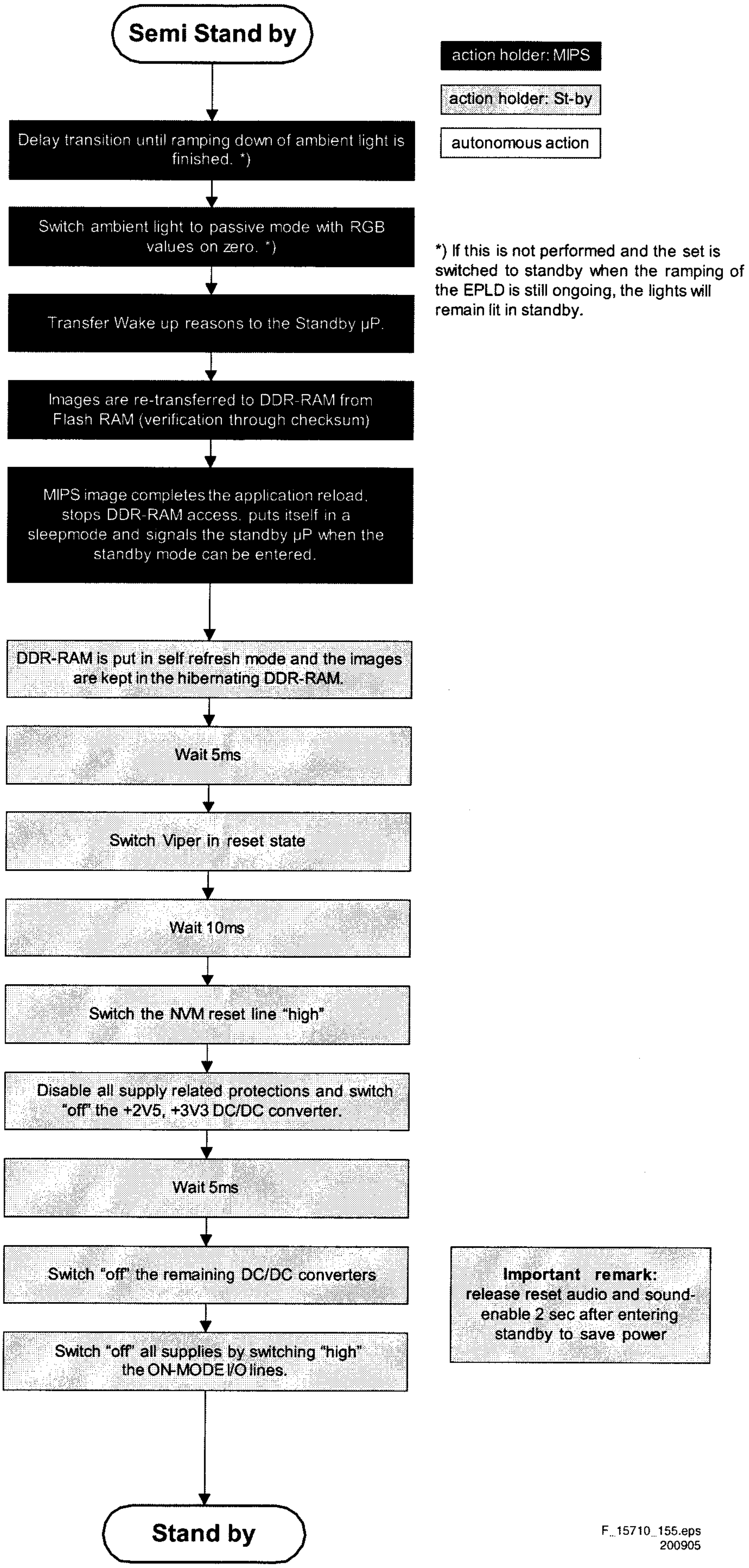
Figure 5-7 "Active" to "Semi Stand-by" flowchart



Semi Stand by

action holder: MIPS

action holder: St-by

autonomous action

Delay transition until ramping down of ambient light is finished. *)

Switch ambient light to passive mode with RGB values on zero. *)

Transfer Wake up reasons to the Standby µP.

Images are re-transferred to DDR-RAM from Flash RAM (verification through checksum)

MIPS image completes the application reload, stops DDR-RAM access, puts itself in a sleepmode and signals the standby µP when the standby mode can be entered.

DDR-RAM is put in self refresh mode and the images are kept in the hibernating DDR-RAM.

Wait 5ms

Switch Viper in reset state

Wait 10ms

Switch the NVM reset line "high"

Disable all supply related protections and switch "off" the +2V5, +3V3 DC/DC converter.

Wait 5ms

Switch "off" the remaining DC/DC converters

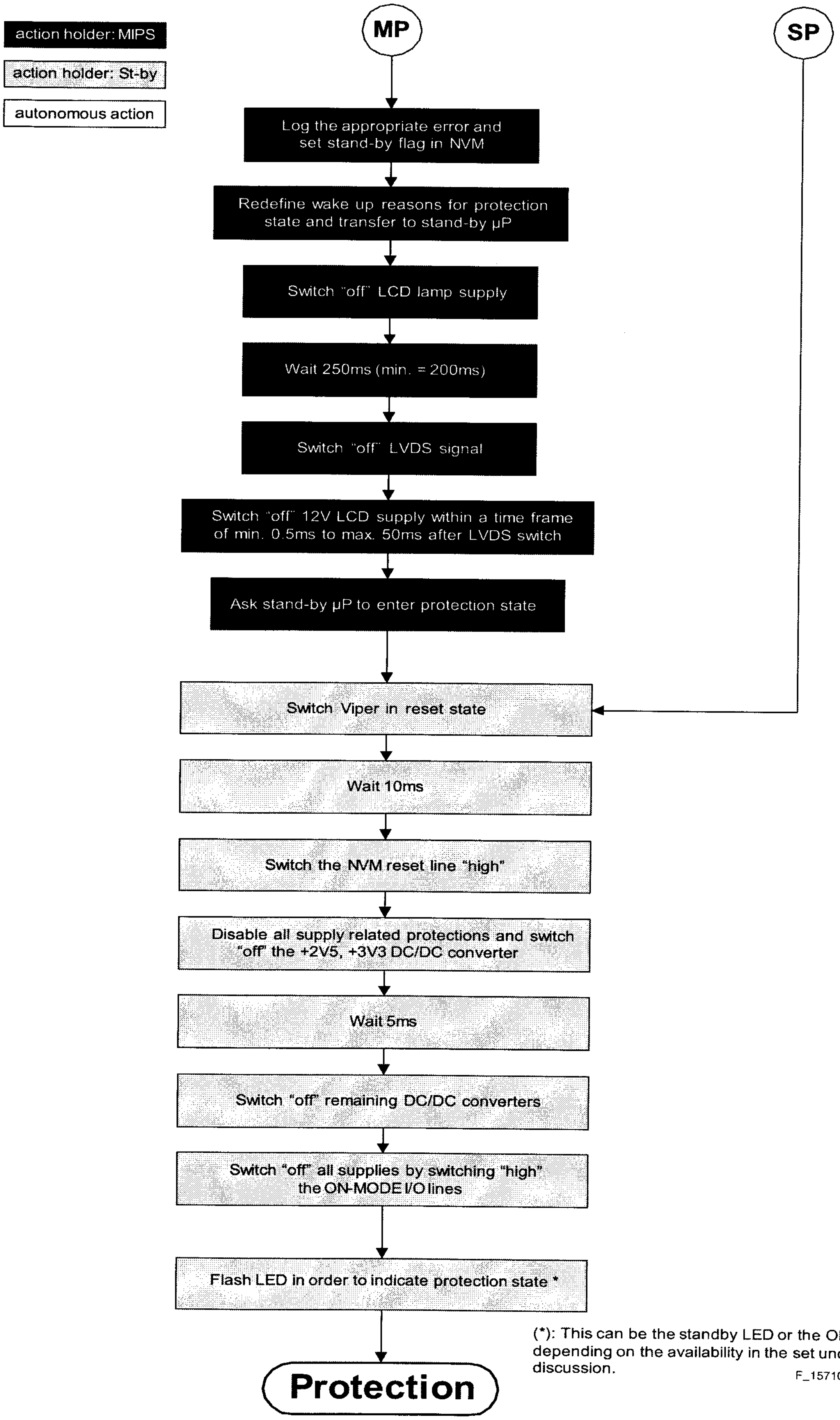
Switch "off" all supplies by switching "high" the ON-MODE I/O lines.

Stand by

*) If this is not performed and the set is switched to standby when the ramping of the EPLD is still ongoing, the lights will remain lit in standby.

Important remark: release reset audio and sound-enable 2 sec after entering standby to save power

Figure 5-8 "Semi Stand-by" to "Stand-by" flowchart


action holder: MIPS
action holder: St-by
autonomous action
MP
SP
Log the appropriate error and set stand-by flag in NVM
Redefine wake up reasons for protection state and transfer to stand-by µP
Switch "off" LCD lamp supply
Wait 250ms (min. = 200ms)
Switch "off" LVDS signal
Switch "off" 12V LCD supply within a time frame of min. 0.5ms to max. 50ms after LVDS switch
Ask stand-by µP to enter protection state
Switch Viper in reset state
Wait 10ms
Switch the NVM reset line "high"
Disable all supply related protections and switch "off" the +2V5, +3V3 DC/DC converter
Wait 5ms
Switch "off" remaining DC/DC converters
Switch "off" all supplies by switching "high" the ON-MODE I/O lines
Flash LED in order to indicate protection state *
Protection

(*): This can be the standby LED or the ON LED depending on the availability in the set under discussion.

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Figure 5-9 "Protection" flowchart

5.4 Service Tools

5.4.1 ComPair

Introduction

ComPair (Computer Aided Repair) is a service tool for Philips Consumer Electronics products. ComPair is a further development on the European DST (service remote control), which allows faster and more accurate diagnostics. ComPair has three big advantages:

1. ComPair helps you to quickly get an understanding on how to repair the chassis in a short time by guiding you systematically through the repair procedures.
2. ComPair allows very detailed diagnostics (on I^2C level) and is therefore capable of accurately indicating problem areas. You do not have to know anything about I^2C commands yourself because ComPair takes care of this.
3. ComPair speeds up the repair time since it can automatically communicate with the chassis (when the microprocessor is working) and all repair information is directly available. When ComPair is installed together with the Force/SearchMan electronic manual of the defective chassis, schematics and PWBs are only a mouse click away.

Specifications

ComPair consists of a Windows based fault finding program and an interface box between PC and the (defective) product. The ComPair interface box is connected to the PC via a serial (or RS-232) cable.
For this chassis, the ComPair interface box and the TV communicate via a bi-directional service cable via the service connector(s).

The ComPair fault finding program is able to determine the problem of the defective television. ComPair can gather diagnostic information in two ways:

- Automatically (by communicating with the television): ComPair can automatically read out the contents of the entire error buffer. Diagnosis is done on I^2C/UART level. ComPair can access the I^2C/UART bus of the television. ComPair can send and receive I^2C/UART commands to the microcontroller of the television. In this way, it is possible for ComPair to communicate (read and write) to devices on the I^2C/UART buses of the TV-set.
- Manually (by asking questions to you): Automatic diagnosis is only possible if the microcontroller of the television is working correctly and only to a certain extent. When this is not the case, ComPair will guide you through the fault finding tree by asking you questions *(e.g. Does the screen give a picture? Click on the correct answer: YES / NO)* and showing you examples *(e.g. Measure test-point I7 and click on the correct oscillogram you see on the oscilloscope)*. You can answer by clicking on a link *(e.g. text or a waveform picture)* that will bring you to the next step in the fault finding process.

By a combination of automatic diagnostics and an interactive question / answer procedure, ComPair will enable you to find most problems in a fast and effective way.

How to Connect

This is described in the chassis fault finding database in ComPair.

Caution: It is compulsory to connect the TV to the PC as shown in the next picture (with the ComPair interface in between), as the ComPair interface acts as a level shifter. If one connects the TV directly to the PC (via UART), ICs will be blown!

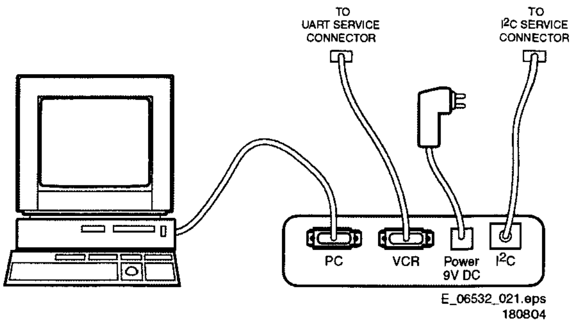

Figure 5-10 ComPair interface connection

How to Order

ComPair order codes:

- Starter kit ComPair32/SearchMan32 software and ComPair interface (excl. transformer): 3122 785 90450.
- ComPair interface (excl. transformer): 4822 727 21631.
- Starter kit ComPair32 software (registration version): 3122 785 60040.
- ComPair32 CD (update): 3122 785 60070 (year 2002), 3122 785 60110 (year 2003 onwards).
- ComPair firmware upgrade IC: 3122 785 90510.
- Transformer (non-UK): 4822 727 21632.
- Transformer (UK): 4822 727 21633.
- ComPair interface cable: 3122 785 90004.
- ComPair interface extension cable: 3139 131 03791.
- ComPair UART interface cable: 3122 785 90630.

Note: If you encounter any problems, contact your local support desk.

5.4.2 LVDS Tool

Introduction

This service tool (also called "ComPair Assistant 1") may help you to identify, in case the TV does not show any picture, whether the Small Signal Board (SSB) **or** the display of a Flat TV is defective.

Since 2004, the LVDS output connectors in our Flat TV models are standardised (with some exceptions). With the two delivered LVDS interface cables (31p and 20p) you can cover most chassis (in special cases, an extra cable will be offered).

When operating, the tool will show a small (scaled) picture on a VGA monitor. Due to a limited memory capacity, it is not possible to increase the size when processing high-resolution LVDS signals (> 1280x960). Below this resolution, or when a DVI monitor is used, the displayed picture will be full size.

Generally this tool is intended to determine if the SSB is working or not. Thus to determine if LVDS, RGB, and sync signals are okay.

How to Connect

Connections are explained in the user manual, which is packed with the tool.

Note: To use the LVDS tool, you must have ComPair release 2004-1 (or later) on your PC (engine version >= 2.2.05).
For every TV type number and screen size, one must choose the proper settings via ComPair. The ComPair file will be updated regularly with new introduced chassis information.

How to Order

- LVDS tool (incl. two LVDS cables: 31p and 20p): 3122 785 90671.
- LVDS tool Service Manual: 3122 785 00810.
- LVDS cable 31p/300/31p (for full HD displays): 3122 785 90861.

5.5 Error Codes

5.5.1 Introduction

The error code buffer contains all detected errors since the last time the buffer was erased. The buffer is written from left to right, new errors are logged at the left side, and all other errors shift one position to the right.
When an error occurs, it is added to the list of errors, provided the list is not full or the error is a protection error.
When an error occurs and the error buffer is full, then the new error is not added, and the error buffer stays intact (history is maintained), except when the error is a protection error.
To prevent that an occasional error stays in the list forever, the error is removed from the list after more than 50 hrs. of operation.
When multiple errors occur (errors occurred within a short time span), there is a high probability that there is some relation between them.

Basically there are three kinds of errors:

- **Errors detected by the Stand-by Processor.** These errors will always lead to protection and an automatic start of the blinking LED for the concerned error (see paragraph "The Blinking LED Procedure"). In these cases SDM can be used to start up (see chapter "Stepwise Start-up"). Note that it can take up to 90 seconds before the TV goes to protection and starts blinking the error (e.g. error 53)
- **Errors detected by VIPER that lead to protection.** In this case the TV will go to protection and the front LED will blink at 3 Hz. Depending on the software version it is possible that further diagnosis via service modes is not possible here (see also paragraph "Error Codes" -> "Error Buffer" -> "Extra Info").
- **Errors detected by VIPER that do not lead to protection.** In this case the error can be read out via ComPair, via blinking LED method, or in case you have picture, via SAM.

5.5.2 How to Read the Error Buffer

Use one of the following methods:

- On screen via the SAM (only if you have a picture). E.g.:
  - **00 00 00 00 00**: No errors detected
  - **06 00 00 00 00**: Error code 6 is the last and only detected error
  - **09 06 00 00 00**: Error code 6 was first detected and error code 9 is the last detected error
- Via the blinking LED procedure (when you have no picture). See next paragraph.
- Via ComPair.

5.5.3 How to Clear the Error Buffer

Use one of the following methods:

- By activation of the "RESET ERROR BUFFER" command in the SAM menu.
- With a normal RC, key in sequence "MUTE" followed by "062599" and "OK".
- With a DST, key in sequence "DIAGNOSE" - "99" - "OK".
- If the content of the error buffer has not changed for 50+ hours, it resets automatically.

5.5.4 Error Buffer

In case of non-intermittent faults, clear the error buffer before you begin the repair (**before** clearing the buffer, write down the content, as this history can give you significant information). This to ensure that old error codes are no longer present.
If possible, check the entire contents of the error buffer. In some situations, an error code is only the result of another error code and not the actual cause (e.g., a fault in the protection detection circuitry can also lead to a protection).
There are several mechanisms of error detection:

- Via error bits in the status registers of ICs.
- Via polling on I/O pins going to the stand-by processor.
- Via sensing of analogue values on the stand-by processor.
- Via a "not acknowledge" of an I^2C communication

Take notice that some errors need more than 90 seconds before they start blinking. So in case of problems wait 2 minutes from start-up onwards, and then check if the front LED is blinking.

Table 5-3 Error code overview

Error	Description	Error/Prot	Detected by	Device	Schematic	Defective module	Result
1	I^2C1	P	VIPER	n.a.	B7A	I^2C1_blocked	Protection + 3 Hz blinking
2	I^2C2	P	VIPER	n.a.	B7A	I^2C2_blocked	Protection + 3 Hz blinking
3	I^2C3	P	Stby µP	n.a.	B7A	/	Protection + Error blinking
4	I^2C4	P	VIPER	n.a.	B7A	I^2C4_blocked	Protection + 3 Hz blinking
5	VIPER does not boot	P	Stby µP	PNX8550	B7E	/	Protection + Error blinking
6	5V supply	P	Stby µP	n.a.	B8A	/	Protection + Error blinking
7	8V6 supply	P	Stby µP	n.a.	B8A	/	Protection + Error blinking
8	1.2V DC/DC	P	Stby µP	n.a.	B8A	/	Protection + Error blinking
9	2.5V DC/DC	P	Stby µP	n.a.	B8A	/	Protection + Error blinking
11	3.3V DC/DC	P	Stby µP	n.a.	B8A	/	Protection + Error blinking
12	12V supply	P	Stby µP	n.a.	B8A	/	Protection + Error blinking
14	Supply Class D amplifiers	P	Stby µP	n.a.	B8A	/	Protection + Error blinking
17	MPIF1 audio supply	E	VIPER	PNX3000	B4D	IF I/O	Error logged
18	MPIF1 ref. freq.	E	VIPER	PNX3000	B4B	IF I/O	Error logged
22	MPIF2 audio supply	E	VIPER	PNX3000	B4H	IF I/O	Error logged
23	MPIF2 ref. freq.	E	VIPER	PNX3000	B4F	IF I/O	Error logged
25	Supply fault	P	Stby µP	n.a.	B5E	/	Protection + Error blinking
27	Phoenix	E	VIPER	PNX2015B	B5E	HD subsystem	Error logged
28	MOP	E	VIPER	XC3S	B9D	Output processor	Error logged
29	AVIP1	E	VIPER	PNX2015	B5E	AV input processor 1	Error logged
31	AVIP2	E	VIPER	PNX2015	B5E	AV input processor 2	Error logged
32	MPIF1	E	VIPER	PNX3000	B4B	Analog 1 front end 1	Error logged
33	MPIF2	E	VIPER	PNX3000	B4F	Analog 1 front end 2	Error logged

Error	Description	Error/Prot	Detected by	Device	Schematic	Defective module	Result
34	Tuner1	E	VIPER	/	B2	Tuner 1	Error logged
35	Tuner2	E	VIPER	/	B3	Tuner 1	Error logged
38	I/O Expander audio	E	VIPER	PCA9554	B14B	Audio I/O Expander	Error logged
43	Hi Rate Front End	E	VIPER	TDA9975	B11B	HDMI	Error logged
44	Main NVM	E	VIPER	M24C64	B8A	/	Error logged
45	Columbus 1	E	VIPER	PNX2015	B5E	Comb filter	Error logged
53	VIPER	P	Stby µP	PNX8550	B7A	/	Protection + Error blinking
55	SPIDER	E	VIPER	/	B6A	Video Featuring	Error logged

Extra Info

- **Error 1 (I^{2}C bus 1 blocked).** When this error occurs, the TV will go to protection and the front LED will blink at 3 Hz. Now you can partially restart the TV via the SDM short-cut pins on the SSB. Depending on the software version it is possible that this mechanism does not work. Update the main software to have the latest status.
- **Error 2 (I^{2}C bus 2 blocked).** When this error occurs, the TV will go to protection and the front LED will blink at 3 Hz. Now you can partially restart the TV via the SDM short-cut pins on the SSB. Due to hardware restriction (I^{2}C bus 2 is the fast I^{2}C bus) it will be impossible to start up the VIPER and therefore it is also impossible to read out the error codes via ComPair or via the blinking LED method. With the knowledge that only errors 1, 2 and 4 result in a 3 Hz blinking LED, the range of possible defects is limited. When you have restarted the TV via the SDM short-cut pins, and then pressed "CH+" on your remote control, the TV will go to protection again, and the front LED blink at 3 Hz again. This could be an indication that the problem is related to error 2.
- **Error 3 (I^{2}C bus 3 blocked).** There are only three devices on I^{2}C bus 3: VIPER, Stand-by Processor, and NVM. The Stand-by Processor is the detection device of this error, so this error will only occur if the VIPER or the NVM is blocking the bus. This error will also be logged when the NVM gives no acknowledge on the I^{2}C bus (see error 44). Note that if the 12 V supply is missing (connector 1M46 on the SSB), the DC/DC supply on the SSB will not work. Therefore the VIPER will not get supplies and could block I^{2}C bus 3. So, a missing 12 V can also lead to an error 3.
- **Error 4 (I^{2}C bus 4 blocked).** Same remark as with error 1.
- **Error 5 (VIPER does not boot).** This error will point to a severe hardware problem around the VIPER (supplies not OK, VIPER completely dead, I^{2}C link between VIPER and Stand-by Processor broken, etc...).
- **Error 12 (12 V error).** Except a physical problem with the 12 V itself, it is also possible that there is something wrong with the Audio DC Protection: see paragraph "Hardware Protections" for this.
- **Error 14 (Audio supply).** The detection is done on the audio board itself. Here, the absence of one of the audio supplies is sensed, and will lead to protection and error 14 blinked. For LCD sets this circuit can be found on schematic SA3, for PDP sets this can be found on schematic C.
- **Error 17 (MPIF 1 audio supply).** This error indicates that the 8V-AUD is missing on pin 98 of the MPIF. The result of this missing supply will be that there is no sound on external sources (you will have sound from tuner).
- **Error 22 (MPIF 2 audio supply).** Same remark as for error 17.
- **Error 27 (PNX2015 HD subsystem part error).** Depending on the software version it is possible that the detection mechanism of this error does not function.
- **Error 28 (MOP/EPLD error).** Due to the detection mechanism of the MOP error it is possible that the actual logging of the error can take up to 4 minutes (worst case). So if you want to be sure there is a MOP error, reset the error buffer, restart the TV and wait for 4 minutes before checking the error buffer again. The detection mechanism for this error has been changed to avoid "false" MOP errors.
- **Error 29 (AVIP1).** This error will probably generate extra errors. You will probably also see errors 32 (MPIF) and error 31 (AVIP 2). Error 29 and 31 will always be logged together due to the fact that both AVIPs are inside the PNX2015 and are on the same I^{2}C bus. In this case start looking for the cause around AVIP (part of PNX2015). Depending on the software version it is possible that the detection mechanism of this error does not function.
- **Error 31 (AVIP2).** See info on error 29.
- **Error 44 (NVM).** This error will probably never occur because it is masked by error 3 (I^{2}C bus 3). The detection mechanism for error 3 checks on an I^{2}C acknowledge of the NVM. If NVM gives no acknowledge, the stand-by software assumes that the bus is blocked, the TV goes to protection and error 3 will be blinking.
- **Error 53.** This error will indicate that the VIPER has started to function (by reading his boot script, if this would have failed, error 5 would blink) but initialization was never completed because of hardware peripheral problems (NAND flash, ...) or software initialization problems. Possible cause could be that there is no valid software loaded (try to upgrade to the latest main software version). Note that it takes 90 seconds before the TV goes to protection in this case.
- **Error 55 (SPIDER error).** Depending on the software version it is possible that the detection mechanism of this error does not function.

5.6 The Blinking LED Procedure

5.6.1 Introduction

The blinking LED procedure can be split up into two situations:

- Blinking LED procedure in case of a protection detected by the stand-by processor. In this case the error is automatically blinked. This will be only one error, namely the one that is causing the protection. Therefore, you do not have to do anything special, just read out the blinks. A long blink indicates the decimal digit, a short blink indicates the units.
- Blinking LED procedure in the "on" state. Via this procedure, you can make the contents of the error buffer visible via the front LED. This is especially useful for fault finding, when there is no picture.

When the blinking LED procedure is activated in the "on" state, the front LED will show (blink) the contents of the error-buffer. Error-codes > 10 are shown as follows:

1. "n" long blinks (where "n" = 1 - 9) indicating decimal digit,
2. A pause of 1.5 s,
3. "n" short blinks (where "n"= 1 - 9),
4. A pause of approx. 3 s.
5. When all the error-codes are displayed, the sequence finishes with a LED blink of 3 s,
6. The sequence starts again.

Example: Error 12 9 6 0 0.
After activation of the SDM, the front LED will show:

1. 1 long blink of 750 ms (which is an indication of the decimal digit) followed by a pause of 1.5 s,
2. 2 short blinks of 250 ms followed by a pause of 3 s,
3. 9 short blinks followed by a pause of 3 s,
4. 6 short blinks followed by a pause of 3 s,
5. 1 long blink of 3 s to finish the sequence,
6. The sequence starts again.

5.6.2 How to Activate

Use one of the following methods:

- **Activate the SDM.** The blinking front LED will show the entire contents of the error buffer (this works in "normal operation" mode).
- **Transmit the commands "MUTE" - "062500" - "OK" with a normal RC.** The complete error buffer is shown. Take notice that it takes some seconds before the blinking LED starts.
- **Transmit the commands "MUTE" - "06250x" - "OK" with a normal RC** (where "x" is a number between 1 and 5). When x= 1 the last detected error is shown, x= 2 the second last error, etc.... Take notice that it takes some seconds before the blinking LED starts.

5.7 Protections

5.7.1 Software Protections

Most of the protections and errors use either the stand-by microprocessor or the VIPER controller as detection device. Since in these cases, checking of observers, polling of ADCs, filtering of input values are all heavily software based, these protections are referred to as software protections.
There are several types of software related protections, solving a variety of fault conditions:

- **Protections related to supplies:** check of the 12V, +5V, +8V6, +1.2V, +2.5V and +3.3V.
- **Protections related to breakdown of the safety check mechanism.** E.g. since a lot of protection detections are done by means of the VIPER, failing of the VIPER communication will have to initiate a protection mode since safety cannot be guaranteed any more.

Remark on the Supply Errors

The detection of a supply dip or supply loss during the normal playing of the set does not lead to a protection, but to a cold reboot of the set. If the supply is still missing after the reboot, the TV will go to protection.

Protections during Start-up

During TV start-up, some voltages and IC observers are actively monitored to be able to optimise the start-up speed, and to assure good operation of all components. If these monitors do not respond in a defined way, this indicates a malfunction of the system and leads to a protection. As the observers are only used during start-up, they are described in the start-up flow in detail (see paragraph "Stepwise Start-up").

5.7.2 Hardware Protections

There is one hardware protection in this chassis: "Audio DC Protection". This protection occurs when there is a DC voltage on the speakers. In that case the main supply is switched "off", but the stand-by supply is still working.
In case of LCD supplies, the 12V supply will drop. This will be detected by the stand-by processor, which will start blinking the 12 V error (error 12).

Repair Tips

- If there is an audio DC protection (DC voltage on your speakers), you will probably see error 12 blink in case of LCD TVs. To be sure there is an audio DC protection, disconnect the cable between the SSB and the Audio PWB and also the cable between the Main Supply and the Audio PWB. If the TV starts up, it is very likely that there is DC voltage on the speakers. Check, and replace if necessary, the audio amplifiers.
- It is also possible that you have an audio DC protection because of an interruption in one or both speakers (the DC voltage that is still on the circuit cannot disappear through the speakers).

5.8 Fault Finding and Repair Tips

Read also paragraph "Error Codes" - "Extra Info".

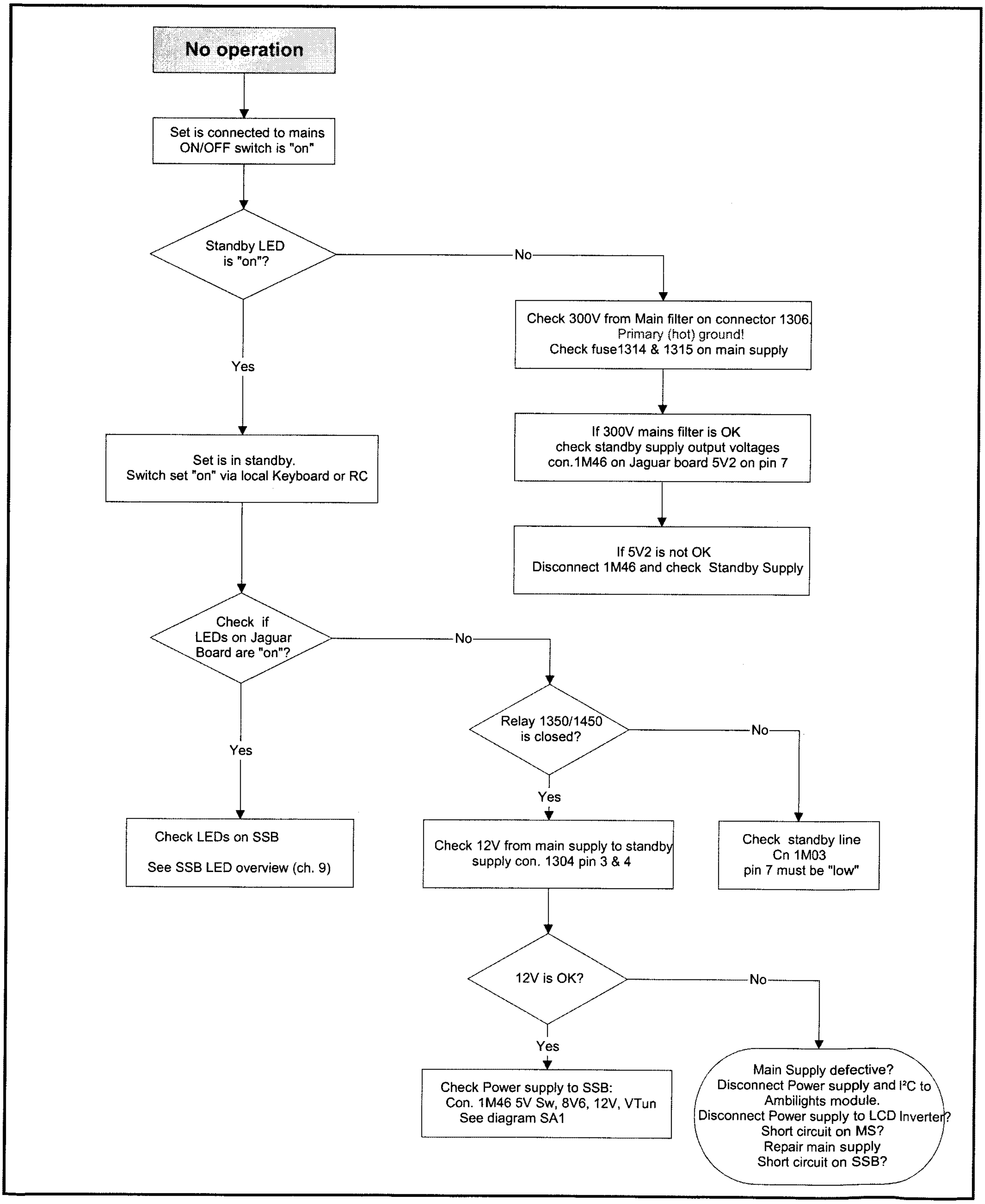
No operation
Set is connected to mains ON/OFF switch is "on"
Standby LED is "on"?
No
Check 300V from Main filter on connector 1306. Primary (hot) ground! Check fuse1314 & 1315 on main supply
If 300V mains filter is OK check standby supply output voltages con.1M46 on Jaguar board 5V2 on pin 7
If 5V2 is not OK Disconnect 1M46 and check Standby Supply
Yes
Set is in standby. Switch set "on" via local Keyboard or RC
Check if LEDs on Jaguar Board are "on"?
No
Relay 1350/1450 is closed?
No
Check standby line Cn 1M03 pin 7 must be "low"
Yes
Check LEDs on SSB See SSB LED overview (ch. 9)
Yes
Check 12V from main supply to standby supply con. 1304 pin 3 & 4
12V is OK?
No
Main Supply defective? Disconnect Power supply and I²C to Ambilights module. Disconnect Power supply to LCD Inverter? Short circuit on MS? Repair main supply Short circuit on SSB?
Yes
Check Power supply to SSB: Con. 1M46 5V Sw, 8V6, 12V, VTun See diagram SA1

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Figure 5-11 First line fault find tree

5.8.1 Exit "Factory Mode"

When an "F" is displayed in the screen's right corner, this means that the set is in "Factory" mode, and it normally happens after a new SSB has been mounted.
To exit this mode, push the "VOLUME minus" button on the TV's keyboard control for 5 seconds and restart the set.

5.8.2 MPIF

Important things to make the MPIF work:
- Supply.
- Clock signal from the AVIP.
- I^2C from the VIPER.

5.8.3 AVIP

Important things to make the AVIP work:
- Supplies.
- Clock signal from the VIPER.
- I^2C from the VIPER (error 29 and 31).

5.8.4 DC/DC Converter

Introduction
- The best way to find a failure in the DC/DC converters is to check their starting-up sequence at power "on" via the Mains/AC Power cord, presuming that the Stand-by Processor is operational.
- If the input voltage of the DC/DC converters is around 12 V (measured on the decoupling capacitors 2U17/2U25/2U45) and the ENABLE signals are "low" (active), then the output voltages should have their normal values.
- First, the Stand-by Processor activates the +1V2 supply (via ENABLE-1V2).
- Then, after this voltage becomes present and is detected OK (about 100 ms), the other two voltages (+2V5 and +3V3) will be activated (via ENABLE-3V3).
- The current consumption of controller IC 7U00 is around 20 mA (that means around 200 mV drop voltage across resistor 3U22).
- The current capability of DC/DC converters is quite high (short-circuit current is 7 to 10 A), therefore if there is a linear integrated stabilizer that, for example delivers 1.8V from +3V3 with its output overloaded, the +3V3 stays usually at its normal value even though the consumption from +3V3 increases significantly.
- The +2V5 supply voltage is obtained via a linear stabilizer made with discrete components that can deliver a lot of current. Therefore, in case +2V5 (or +2V5D) is short-circuited to GND, the +3V3 will not have the normal value but much less. The +2V5D voltage is available in stand-by mode via a low power linear stabilizer that can deliver up to 30 mA. In normal operation mode, the value of this supply voltage will be close to +2V5 (20 - 30 mV difference).
- The supply voltages +5V and +8V6 are available on connector 1M46; they are not protected by fuses. +12VSW is protected for over-currents by fuse 1U04.

Fault Finding
- **Symptom:** +1V2, +2V5, and +3V3 not present (even for a short while ~10ms).
  1. Check 12V availability (fuse 1U01, resistor 3U22, power MOS-FETs) and enable signal ENABLE-1V2 (active low).
  2. Check the voltage on pin 9 (1.5 V).
  3. Check for +1V2 output voltage short-circuit to GND that can generate pulsed over-currents 7-10 A through coil 5U03.
  4. Check the over-current detection circuit (2U12 or 3U97 interrupted).
- **Symptom:** +1V2 present for about 100 ms. Supplies +2V5 and +3V3 not rising.
  1. Check the ENABLE-3V3 signal (active "low").
  2. Check the voltage on pin 8 (1.5 V).
  3. Check the under-voltage detection circuit (the voltage on collector of transistor 7U10-1 should be less than 0.8 V).
  4. Check for output voltages short-circuits to GND (+3V3, +2V5 and +2V5D) that generate pulsed over-currents of 7-10 A through coil 5U00.
  5. Check the over-current detection circuit (2U18 or 3U83 interrupted).
- **Symptom:** +1V2 OK, but +2V5 and +3V3 present for about 100 ms. **Cause:** The SUPPLY-FAULT line stays "low" even though the +3V3 and +1V2 is available. The Stand-by Processor is detecting that and switches all supply voltages "off".
  1. Check the value of +2V5 and the drop voltage across resistor 3U22 (they could be too high)
  2. Check if the +1V2 or +3V3 are higher than their normal values. This can be due to defective DC feedback of the respective DC/DC converter (3U18 or 3UA7).
- **Symptom:** +1V2, +2V5, and +3V3 look okay, except the ripple voltage is increased (audible noise can come from the filtering coils 5U00 or 5U03).
  Cause: Instability of the frequency and/or duty cycle of one or both DC/DC converters.
  - Check resistor 3U06, the decoupling capacitors, the AC feedback circuits (2U20 + 2U21 + 3U14 + 3U15 for +1V2 or 2U19 + 2U85 + 3U12 + 3U13 for +3V3), the compensation capacitors 2U09, 2U10, 2U23 and 2U73, and IC 7U00.

Note 1: If fuse 1U01 is broken, this usually means a pair of defective power MOSFETs (7U01 or 7U03). Item 7U00 should be replaced as well in this case.

Note 2: The 12V switch and 8V6 switch (see "DC/DC CONNECTIONS" schematic) are not present on board: they are bypassed by jumpers.

5.9 Software Upgrading

5.9.1 Introduction

The set software and security keys are stored in a NAND-Flash, which is connected to the VIPER via the PCI bus.

It is possible **for the user** to upgrade the **main** software via the USB port. This allows replacement of a software image in a stand alone set, without the need of an E-JTAG debugger. A description on how to upgrade the main software can be found in chapter 3 "Directions For Use".

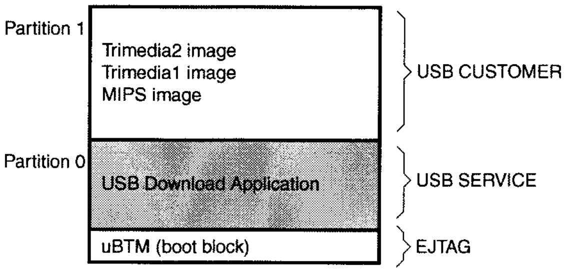
Important: When the NAND-Flash must be replaced, a new SSB must be ordered, due to the presence of the security keys!!! See table "SSB service kits" for the order codes.
Perform the following actions after SSB replacement:
1. Set the correct option codes (see sticker inside the TV).
2. Update the TV software (see chapter 3 for instructions).
3. Perform the alignments as described in chapter 8.
4. Check in CSM menu 5 if the HDMI keys are valid.

Table 5-4 SSB service kits

Model Number	New SSB order code
32PF9830/10	3104 328 41231
37PF9830/10	3104 328 41241
42PF9830/10	3104 328 41251

5.9.2 Main Software Upgrade

The software image resides in the NAND-Flash, and is formatted in the following way:



E_14700_082.eps
120505

Figure 5-12 NAND-Flash format

Executables are stored as files in a file system. The boot loader (uBTM) will load the USB Download Application in partition 0 (USB drivers, boot script, etc.). This application makes it then possible to upgrade the main software via USB.

Installing "Partition 0" software is possible via an external EJTAG tool, but also in a special way with the USB stick (see description in paragraph "Partition 0").

Partition 1 (Customer)

To do a main software upgrade (partition 1) via USB, the set must be operational, and the "Partition 0" files for the VIPER **must** be installed in the NAND-Flash!

The new software can be uploaded to the TV by using a portable memory device or USB storage compliant devices (e.g. USB memory stick). You can download the new software from the Philips website to your PC.

Partition 0 (Service)

If the "Partition 0" software is corrupted, the software needs to be re-installed.
To upgrade this "USB download application" (partition 0 except the boot block), insert an USB stick with the correct software, but press the "red" button on the remote control (in "TV" mode) when it is asked via the on screen text.

Caution:

- The USB download application will now erase **both** partitions (except the boot block), so you need to reload the main SW after upgrading the USB download application. As long as this is not done, the USB download application will start when the set is switched "on".
- When something goes wrong during the progress of this method (e.g. voltage dip or corrupted software file), the set will not start up, and can only be recovered via the EJTAG tool!

5.9.3 Manual Start of the Main Software Upgrade Application

Normally, the software upgrading procedure will start automatically, when a memory device with the correct software is inserted, but in case this does not work, it is possible to force the TV into the software upgrade application. To do so:

- Disconnect the TV from the Mains/AC Power.
- Press the "OK" button on a Philips DVD RC-6 remote control (it is also possible to use the TV remote in "DVD" mode).
- Keep the "OK" button pressed while connecting the TV to the Mains/AC Power.
- The software upgrade application will start.
- When a memory device with upgrade software is connected, the upgrade process will start.

5.9.4 Stand-by Software Upgrade

It will be possible to upgrade the Stand-by software via a PC and the ComPair interface. Check paragraph "ComPair" on how to connect the interface. To upgrade the Stand-by software, use the following steps:

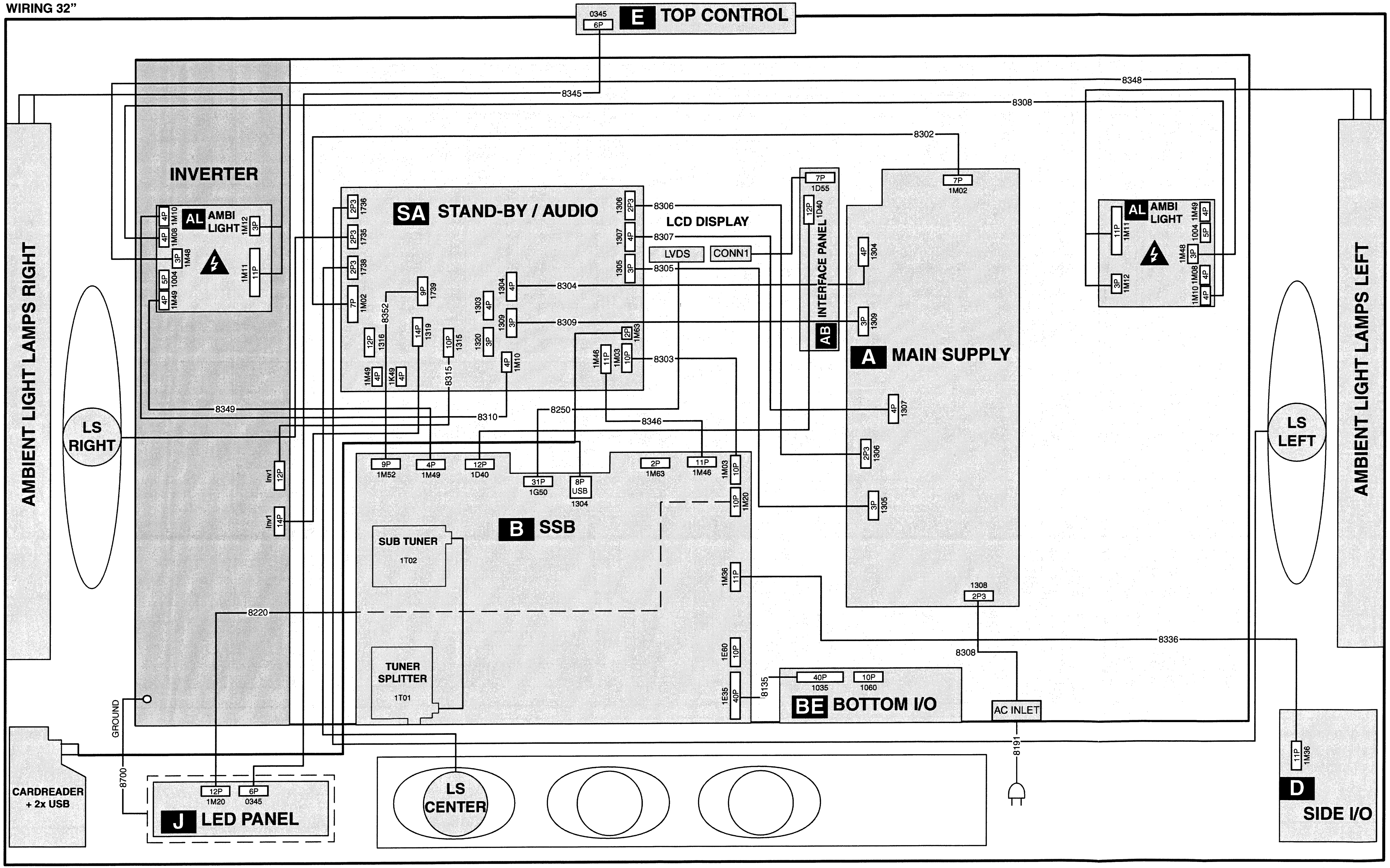
1. Disconnect the TV from the Mains/AC Power.
2. Short circuit the SPI pins [2] on the SSB. They are located outside the shielding (see figure "Service mode pads").
3. Keep the SPI pins shorted while connecting the TV to the Mains/AC Power.
4. Release the short circuit after approx. two seconds.
5. Start up HyperTerminal (can be found in every Windows application via Programs -> Accessories -> Communications -> HyperTerminal. Use the following settings:
   - COM1
   - Bits per second = 19200
   - Data bits = 8
   - Parity = none
   - Stop bits = 1
   - Flow control = Xon / Xoff.
6. Press "Shift U" on your PC keyboard. You should now see the following info:
   - PNX2015 Loader V1.0
   - 19-09-2003
   - DEVID=0x05
   - Erasing
   - MCSUM=0x0000
   - =
7. If you do not see the above info, restart the above procedure, and check your HyperTerminal settings and the connections between PC and TV.
8. Via "Transfer" -> "Send text file ...", you can send the proper upgrade file to the TV. This file will be distributed via the Service Organization.
9. After successful programming, you must see the following info:
   - DCSUM=0xECB3
   - :Ok
   - MCSUM=0xECB3
   - Programming
   - PCSUM=0xECB3
   - Finished
10. If you do not see this info, restart the complete procedure.
11. Close HyperTerminal.
12. Disconnect and connect Mains/AC Power again.

Personal Notes:

E_06532_012.eps
131004

6. Block Diagrams, Testpoint Overview, and Waveforms

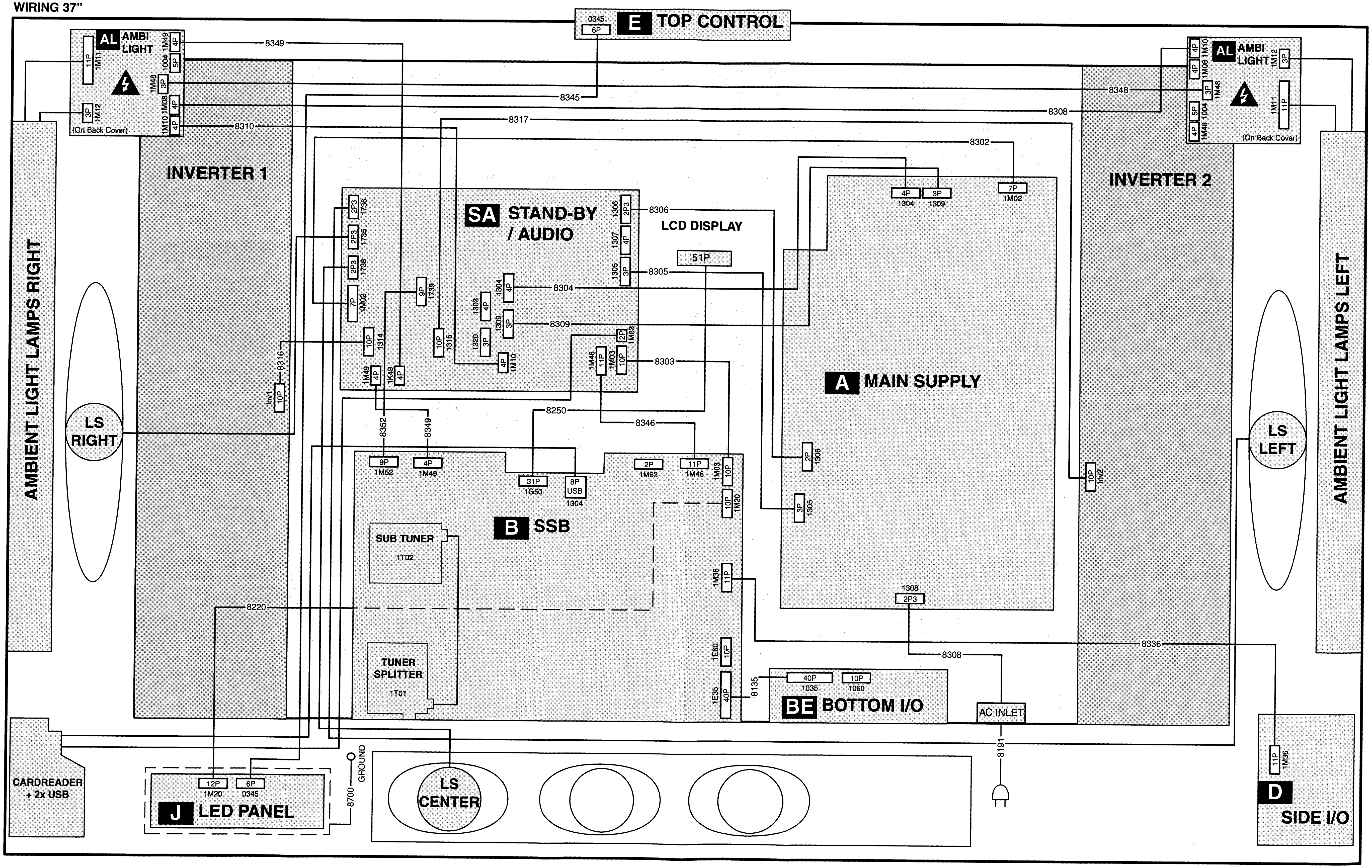
Wiring Diagram (32") LCD SHARP


WIRING 32"
0345
6P
E TOP CONTROL
8345
8348
8308
8302
INVERTER
AL AMBI LIGHT
4P 1M10
4P 1M08
3P 1M48
3P 1M12
5P 1004
4P 1M49
11P 1M11
SA STAND-BY / AUDIO
2P3 1736
2P3 1735
2P3 1738
7P 1M02
9P 1739
8352
12P 1316
14P 1319
10P 1315
1M49 4P
1K49 4P
8315
1303 4P
1304 4P
1309 3P
1320 3P
4P 1M10
1306 2P3
1307 4P
1305 3P
8306
8307
8305
8304
8309
8303
2P 1M63
1M46 11P
1M03 10P
LCD DISPLAY
LVDS
CONN1
7P 1D55
12P 1D40
INTERFACE PANEL
AB
7P 1M02
4P 1304
3P 1309
A MAIN SUPPLY
4P 1307
2P3 1306
3P 1305
1308 2P3
AL AMBI LIGHT
11P 1M11
3P 1M12
4P 1M49
5P 1004
3P 1M48
4P 1M08
4P 1M10
AMBIENT LIGHT LAMPS RIGHT
AMBIENT LIGHT LAMPS LEFT
LS RIGHT
LS LEFT
8349
8310
8250
8346
Inv1 12P
Inv1 14P
9P 1M52
4P 1M49
12P 1D40
31P 1G50
8P USB 1304
2P 1M63
11P 1M46
1M03 10P
10P 1M20
B SSB
SUB TUNER 1T02
1M36 11P
8220
TUNER SPLITTER 1T01
1E60 10P
1E35 40P
8135
40P 1035
10P 1060
BE BOTTOM I/O
8336
8308
AC INLET
8191
GROUND
8700
CARDREADER + 2x USB
12P 1M20
6P 0345
J LED PANEL
LS CENTER
11P 1M36
D SIDE I/O

F_15710_121.eps
290905

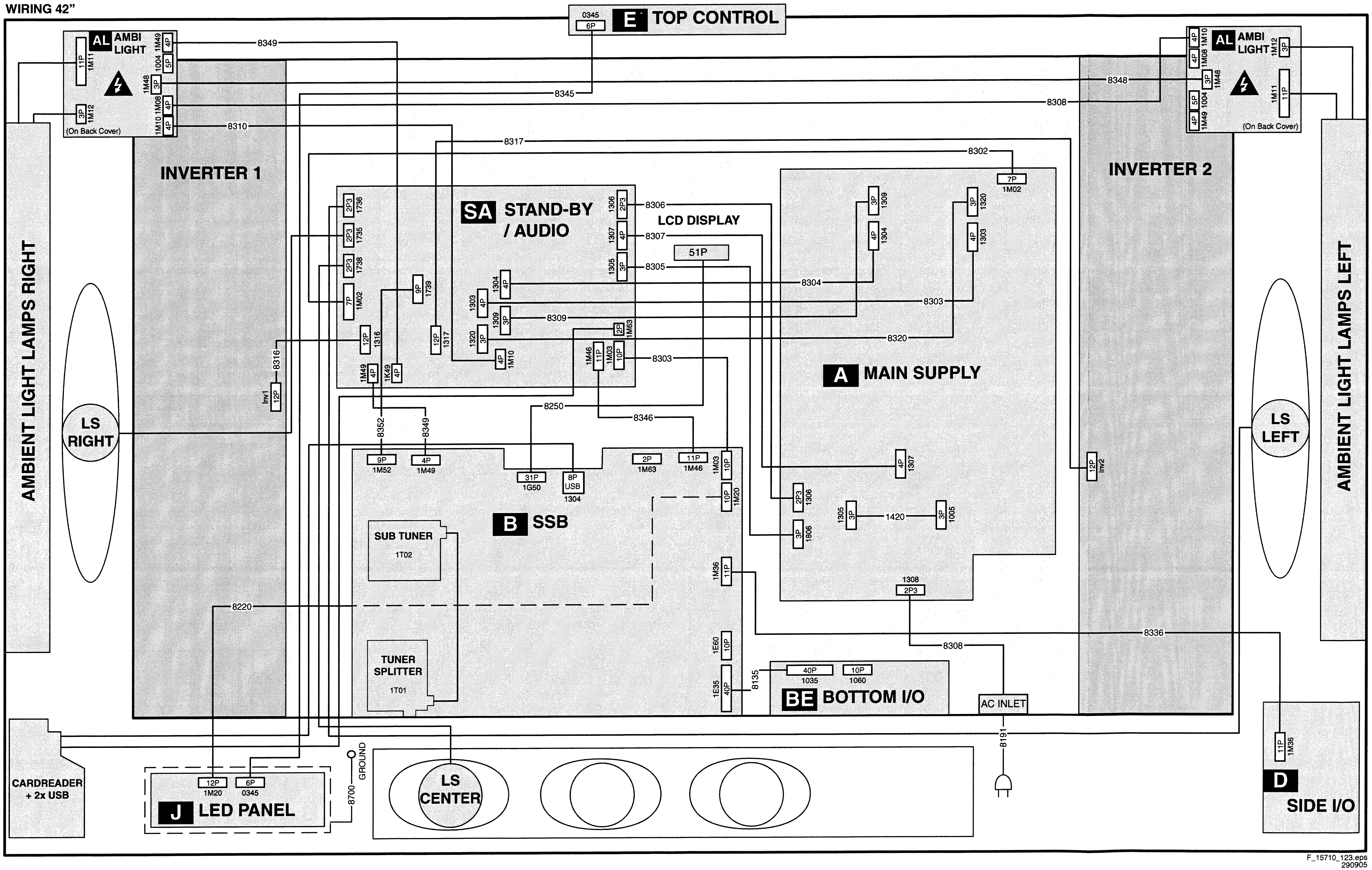
Wiring Diagram (37") LCD LPL

WIRING 37"


E TOP CONTROL
0345
6P
AL AMBI LIGHT
11P 1M11
3P 1M12
(On Back Cover)
4P 1M49
5P 1004
3P 1M48
4P 1M08
4P 1M10
AL AMBI LIGHT
3P 1M12
11P 1M11
4P 1M10
4P 1M08
3P 1M48
5P 1004
4P 1M49
(On Back Cover)
8349
8345
8310
8317
8348
8308
8302
INVERTER 1
INVERTER 2
SA STAND-BY / AUDIO
2P3 1736
2P3 1735
2P3 1738
7P 1M02
10P 1314
9P 1739
10P 1315
3P 1320
4P 1303
4P 1304
3P 1309
4P 1M10
2P3 1306
4P 1307
3P 1305
2P 1M63
11P 1M46
10P 1M03
4P 1M49
4P 1K49
8306
8305
8304
8309
8303
8316
Inv1 10P
LCD DISPLAY
51P
4P 1304
3P 1309
7P 1M02
A MAIN SUPPLY
2P 1306
3P 1305
1308 2P3
10P Inv2
8250
8346
8352
8349
9P 1M52
4P 1M49
31P 1G50
8P USB 1304
2P 1M63
11P 1M46
10P 1M03
10P 1M20
B SSB
SUB TUNER 1T02
TUNER SPLITTER 1T01
11P 1M36
10P 1E60
40P 1E35
8220
8135
40P 1035
10P 1060
BE BOTTOM I/O
AC INLET
8308
8336
8191
AMBIENT LIGHT LAMPS RIGHT
AMBIENT LIGHT LAMPS LEFT
LS RIGHT
LS LEFT
LS CENTER
CARDREADER + 2x USB
12P 1M20
6P 0345
J LED PANEL
8700
GROUND
11P 1M36
D SIDE I/O

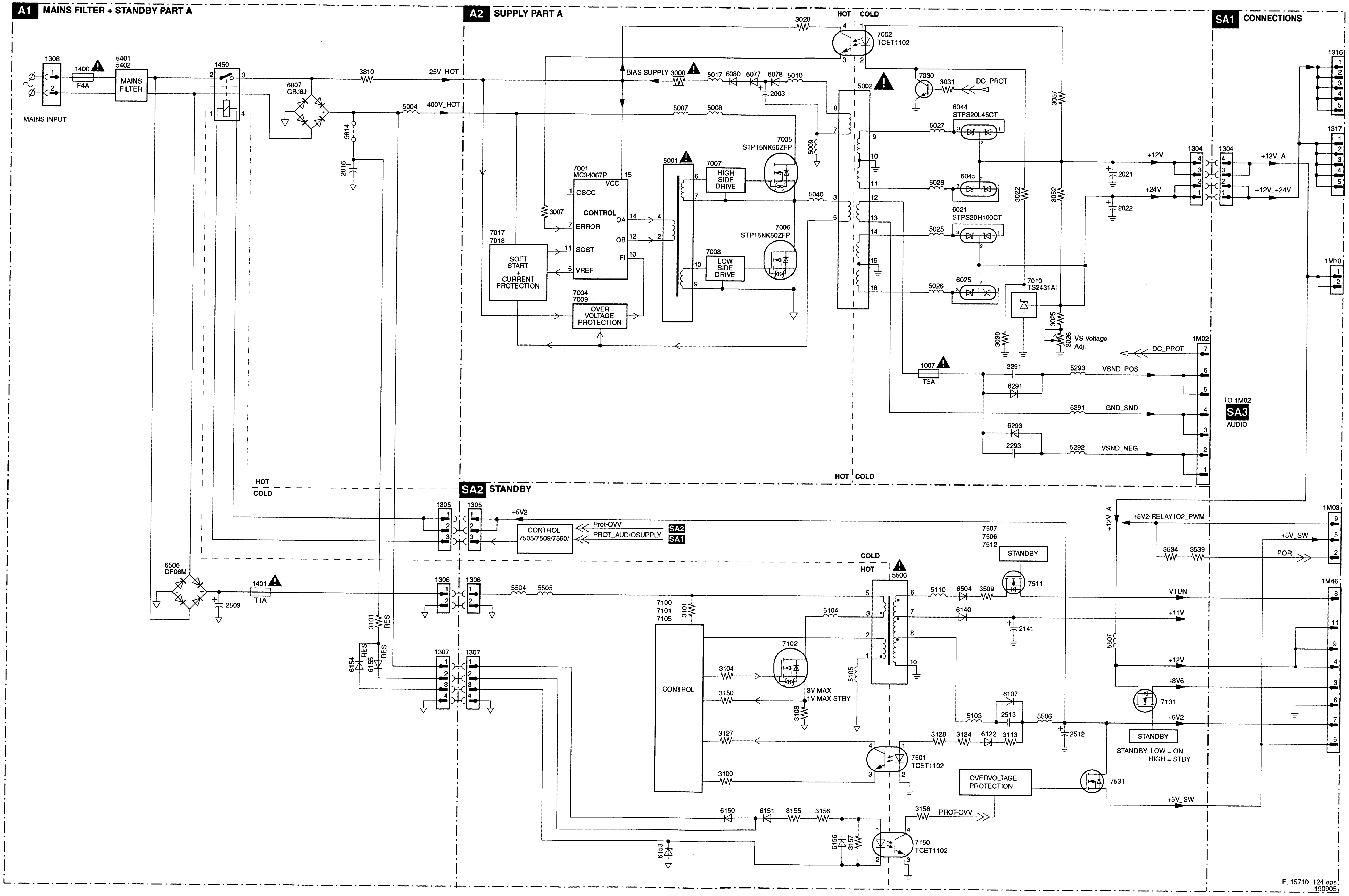
F_15710_122.eps
290905

Wiring Diagram (42") LCD LPL


WIRING 42"
E TOP CONTROL
0345
6P
AL AMBI LIGHT
11P 1M11
1M49 4P
1004 5P
1M48 3P
1M08 4P
1M10 4P
3P 1M12
(On Back Cover)
AL AMBI LIGHT
1M10 4P
1M08 4P
1M12 3P
1M48 3P
1004 5P
1M49 4P
1M11 11P
(On Back Cover)
8349
8345
8310
8317
8302
8348
8308
INVERTER 1
INVERTER 2
SA STAND-BY / AUDIO
2P3 1736
2P3 1735
2P3 1738
7P 1M02
9P 1739
12P 1316
12P 1317
1303 4P
1304 4P
1309 3P
1320 3P
4P 1M10
1M49 4P
1K49 4P
1306 2P3
1307 4P
1305 3P
2P 1M63
1M46 11P
1M03 10P
8306
8307
8305
LCD DISPLAY
51P
8304
8303
8309
8320
8303
8316
Inv1 12P
7P 1M02
A MAIN SUPPLY
3P 1309
4P 1304
3P 1320
4P 1303
4P 1307
2P3 1306
3P 1806
1305 3P
1420
3P 1005
1308 2P3
12P Inv2
8250
8346
8352
8349
AMBIENT LIGHT LAMPS RIGHT
AMBIENT LIGHT LAMPS LEFT
LS RIGHT
LS LEFT
9P 1M52
4P 1M49
31P 1G50
8P USB 1304
2P 1M63
11P 1M46
1M03 10P
10P 1M20
B SSB
SUB TUNER 1T02
TUNER SPLITTER 1T01
1M36 11P
1E60 10P
1E35 40P
8135
8220
8336
8308
40P 1035
10P 1060
BE BOTTOM I/O
AC INLET
8191
CARDREADER + 2x USB
12P 1M20
6P 0345
J LED PANEL
8700
GROUND
LS CENTER
11P 1M36
D SIDE I/O
F_15710_123.eps 290905

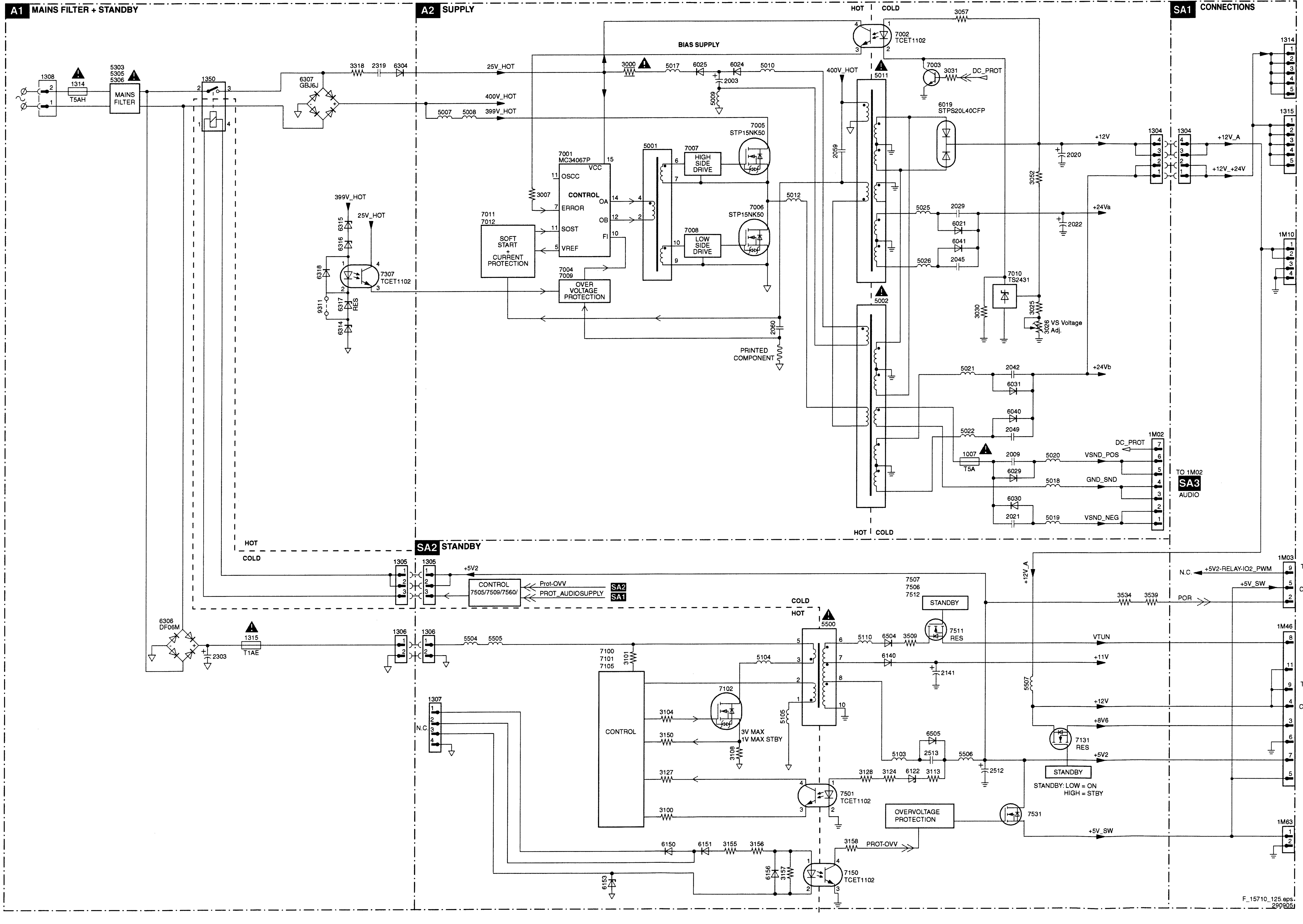
Block Diagram Supply + Standby (32")

SUPPLY 32"


A1 MAINS FILTER + STANDBY PART A
A2 SUPPLY PART A
SA1 CONNECTIONS
SA2 STANDBY
MAINS INPUT
1308
1400
F4A
5401
5402
MAINS FILTER
1450
6807
GBJ6J
3810
25V_HOT
5004
400V_HOT
9814
2816
HOT
COLD
3028
7002
TCET1102
BIAS SUPPLY 3000
5017 6080 6077 6078 5010
2003
5002
7030
3031
DC_PROT
6044
STPS20L45CT
5027
6045
5028
6021
STPS20H100CT
5025
6025
5026
5007 5008
7005
STP15NK50ZFP
5009
5001
7007
HIGH SIDE DRIVE
7006
STP15NK50ZFP
7008
LOW SIDE DRIVE
5040
7001
MC34067P
VCC
OSCC
CONTROL
OA
ERROR
OB
SOST
FI
VREF
3007
7017
7018
SOFT START + CURRENT PROTECTION
7004
7009
OVER VOLTAGE PROTECTION
3057
3022
3052
7010
TS2431AI
3030
3025
3026
VS Voltage Adj.
+12V
+24V
2021
2022
1304
+12V_A
+12V_+24V
1316
TO DISPLAY
1317
TO DISPLAY
1M10
TO 1M10
AL
AMBI LIGHT
1M02
DC_PROT
1007
T5A
2291
6291
5293
VSND_POS
5291
GND_SND
6293
2293
5292
VSND_NEG
TO 1M02
SA3
AUDIO
1305
+5V2
CONTROL
7505/7509/7560/
Prot-OVV
PROT_AUDIOSUPPLY
SA2
SA1
6506
DF06M
1401
T1A
2503
1306
5504 5505
3101
RES
6154
6155
1307
7100
7101
7105
CONTROL
5500
5104
7102
3104
3150
3V MAX
1V MAX STBY
3108
5105
3127
3100
6150 6151 3155 3156
6153
6156
3157
7150
TCET1102
3158
PROT-OVV
7501
TCET1102
OVERVOLTAGE PROTECTION
3128 3124 6122 3113
5103
6107
2513
5506
2512
7507
7506
7512
STANDBY
7511
5110 6504 3509
6140
2141
VTUN
+11V
+12V
+8V6
+5V2
7131
STANDBY
STANDBY: LOW = ON
HIGH = STBY
7531
+5V_SW
+12V_A
+5V2-RELAY-IO2_PWM
3534 3539
+5V_SW
POR
5507
1M03
TO 1M03
B16A
CONNECTIONS
1M46
TO 1M46
B16A
CONNECTIONS
F_15710_124.eps
190905

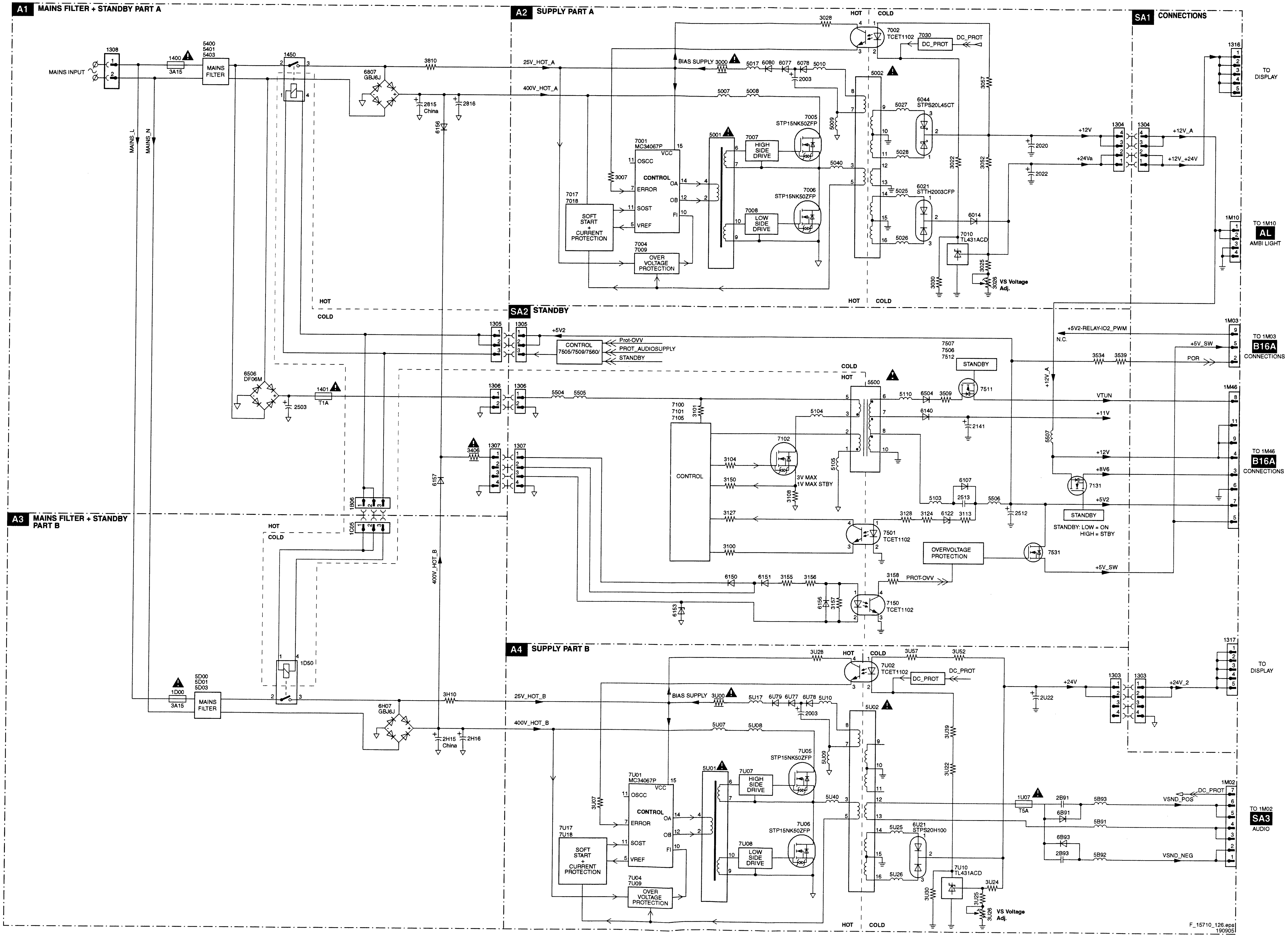
Block Diagram Supply + Standby (37")

SUPPLY 37"


A1 MAINS FILTER + STANDBY
A2 SUPPLY
SA1 CONNECTIONS
SA2 STANDBY
1308
1314
T5AH
5303
5305
5306
MAINS FILTER
1350
6307
GBJ6J
3318
2319
6304
25V_HOT
400V_HOT
5007
5008
399V_HOT
BIAS SUPPLY
3000
5017
6025
6024
5010
2003
5009
400V_HOT
HOT
COLD
7002
TCET1102
3057
7003
3031
DC_PROT
5011
6019
STPS20L40CFP
7005
STP15NK50
7006
STP15NK50
7001
MC34067P
VCC
OSCC
CONTROL
ERROR
SOST
VREF
OA
OB
FI
3007
5001
7007
HIGH SIDE DRIVE
7008
LOW SIDE DRIVE
5012
2059
7011
7012
SOFT START + CURRENT PROTECTION
7004
7009
OVER VOLTAGE PROTECTION
2060
PRINTED COMPONENT
399V_HOT
25V_HOT
6315
6316
6318
7307
TCET1102
9311
6317
RES
6314
+12V
2020
3052
5025
2029
6021
6041
5026
2045
+24Va
2022
7010
TS2431
3030
3025
3026
VS Voltage Adj.
5002
5021
2042
6031
+24Vb
6040
5022
2049
1007
T5A
2009
5020
6029
5018
6030
2021
5019
DC_PROT
VSND_POS
GND_SND
VSND_NEG
1M02
TO 1M02
SA3
AUDIO
1304
+12V_A
+12V_+24V
1314
TO DISPLAY
1315
TO DISPLAY
1M10
TO 1M10
AL
AMBI LIGHT (Optional)
HOT
COLD
1305
+5V2
CONTROL
7505/7509/7560/
Prot-OVV
PROT_AUDIOSUPPLY
SA2
SA1
6306
DF06M
2303
1315
T1AE
1306
5504
5505
7100
7101
7105
3101
CONTROL
5104
7102
3104
3150
3V MAX
1V MAX STBY
3108
3127
3100
1307
N.C.
5500
5105
5110
6504
3509
7511
RES
6140
2141
7507
7506
7512
STANDBY
VTUN
+11V
6505
5103
2513
5506
2512
3128
3124
6122
3113
7501
TCET1102
OVERVOLTAGE PROTECTION
7531
3158
PROT-OVV
6150
6151
3155
3156
6156
3157
7150
TCET1102
6153
+12V_A
5507
+12V
+8V6
7131
RES
+5V2
STANDBY
STANDBY: LOW = ON
HIGH = STBY
+5V_SW
1M03
N.C.
+5V2-RELAY-IO2_PWM
+5V_SW
3534
3539
POR
TO 1J00(1M03)
B16
CONNECTIONS
1M46
TO 1J01(1M46)
B16
CONNECTIONS
1M63
F_15710_125.eps
290905

Block Diagram Supply + Standby (42”)

SUPPLY 42"


A1 MAINS FILTER + STANDBY PART A
A2 SUPPLY PART A
SA1 CONNECTIONS
SA2 STANDBY
A3 MAINS FILTER + STANDBY PART B
A4 SUPPLY PART B
MAINS INPUT
1308
1400
3A15
5400
5401
5403
MAINS FILTER
1450
3810
6807
GBJ6J
2815
China
2816
6156
MAINS_L
MAINS_N
25V_HOT_A
400V_HOT_A
3028
HOT
COLD
7002
TCET1102
7030
DC_PROT
BIAS SUPPLY
3000
5017
6080
6077
6078
5010
2003
5002
5007
5008
3007
7001
MC34067P
VCC
OSCC
CONTROL
ERROR
SOST
VREF
OA
OB
FI
7017
7018
SOFT START + CURRENT PROTECTION
7004
7009
OVER VOLTAGE PROTECTION
5001
7007
HIGH SIDE DRIVE
7008
LOW SIDE DRIVE
7005
STP15NK50ZFP
7006
STP15NK50ZFP
5009
5040
5027
6044
STPS20L45CT
5028
5025
6021
STTH2003CFP
5026
3057
3022
3052
6014
7010
TL431ACD
3025
3026
3030
VS Voltage Adj.
+12V
+24Va
2020
2022
1304
+12V_A
+12V_+24V
1316
TO DISPLAY
1M10
TO 1M10
AL
AMBI LIGHT
1305
+5V2
CONTROL 7505/7509/7560/
Prot-OVV
PROT_AUDIOSUPPLY
STANDBY
1M03
+5V2-RELAY-IO2_PWM
N.C.
+5V_SW
POR
3534
3539
TO 1M03
B16A
CONNECTIONS
7507
7506
7512
STANDBY
7511
6506
DF06M
1401
T1A
2503
1306
5504
5505
5500
7100
7101
7105
3101
5104
5110
6504
3509
6140
2141
VTUN
+11V
+12V_A
5507
+12V
+8V6
7131
+5V2
STANDBY
STANDBY: LOW = ON
HIGH = STBY
1M46
TO 1M46
B16A
CONNECTIONS
3406
1307
7102
3104
3150
3108
3V MAX
1V MAX STBY
5105
CONTROL
3127
3100
6107
5103
2513
5506
2512
3128
3124
6122
3113
7501
TCET1102
OVERVOLTAGE PROTECTION
7531
+5V_SW
6150
6151
3155
3156
3158
PROT-OVV
6153
6156
3157
7150
TCET1102
1306
1C05
6157
400V_HOT_B
1D50
1D00
3A15
5D00
5D01
5D03
MAINS FILTER
3H10
6H07
GBJ6J
2H15
China
2H16
25V_HOT_B
400V_HOT_B
3U28
3U57
3U52
7U02
TCET1102
DC_PROT
BIAS SUPPLY
3U00
5U17
6U79
6U77
6U78
5U10
2003
5U02
5U07
5U08
3U07
7U01
MC34067P
7U17
7U18
SOFT START + CURRENT PROTECTION
7U04
7U09
OVER VOLTAGE PROTECTION
5U01
7U07
HIGH SIDE DRIVE
7U08
LOW SIDE DRIVE
7U05
STP15NK50ZFP
7U06
STP15NK50ZFP
5U09
5U40
5U25
6U21
STPS20H100
5U26
7U10
TL431ACD
3U24
3U39
3U22
3U30
3U25
3U26
VS Voltage Adj.
+24V
2U22
1303
+24V_2
1317
TO DISPLAY
1U07
T5A
2B91
6B91
6B93
2B93
5B93
5B91
5B92
VSND_POS
VSND_NEG
1M02
TO 1M02
SA3
AUDIO
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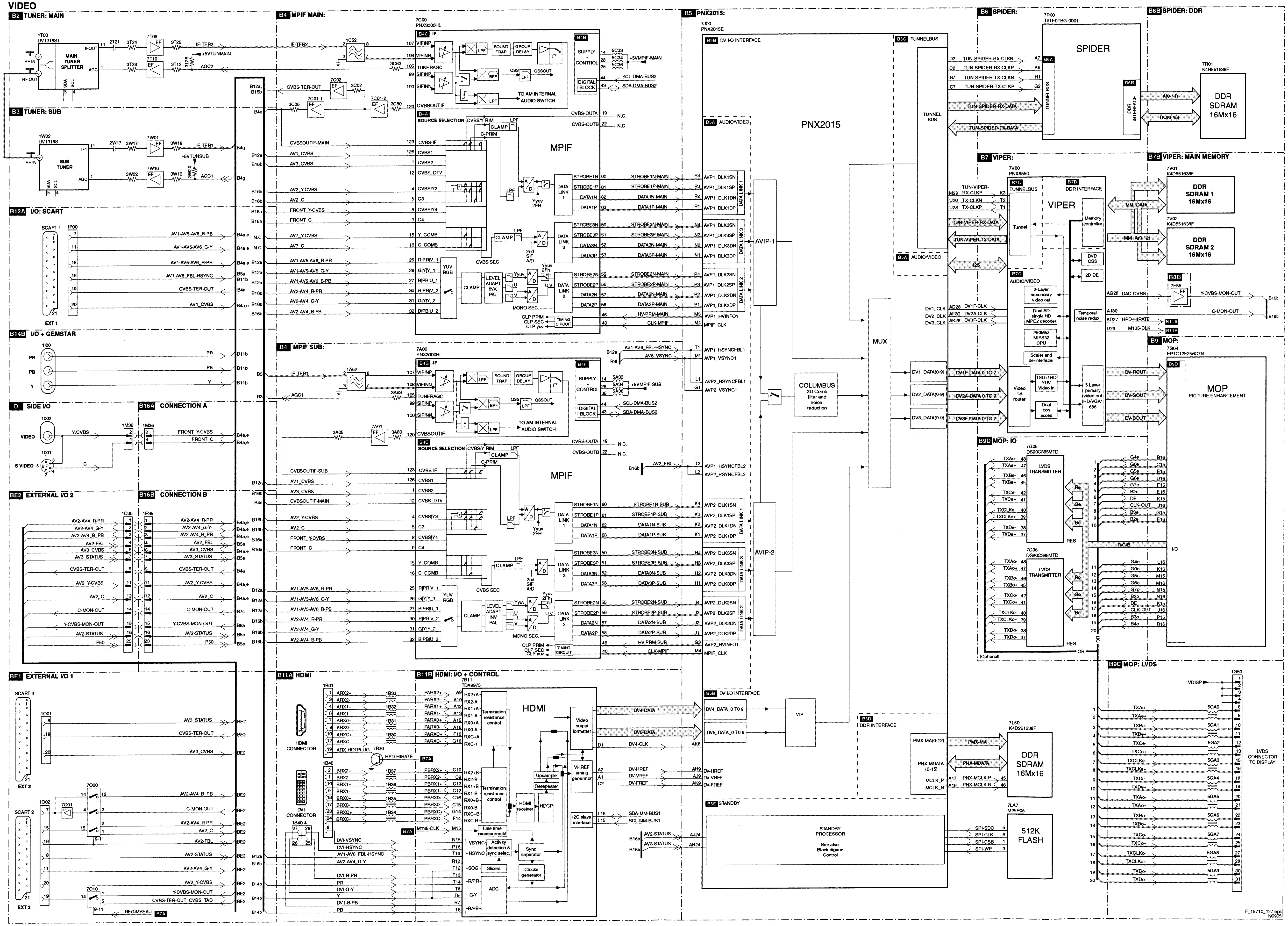
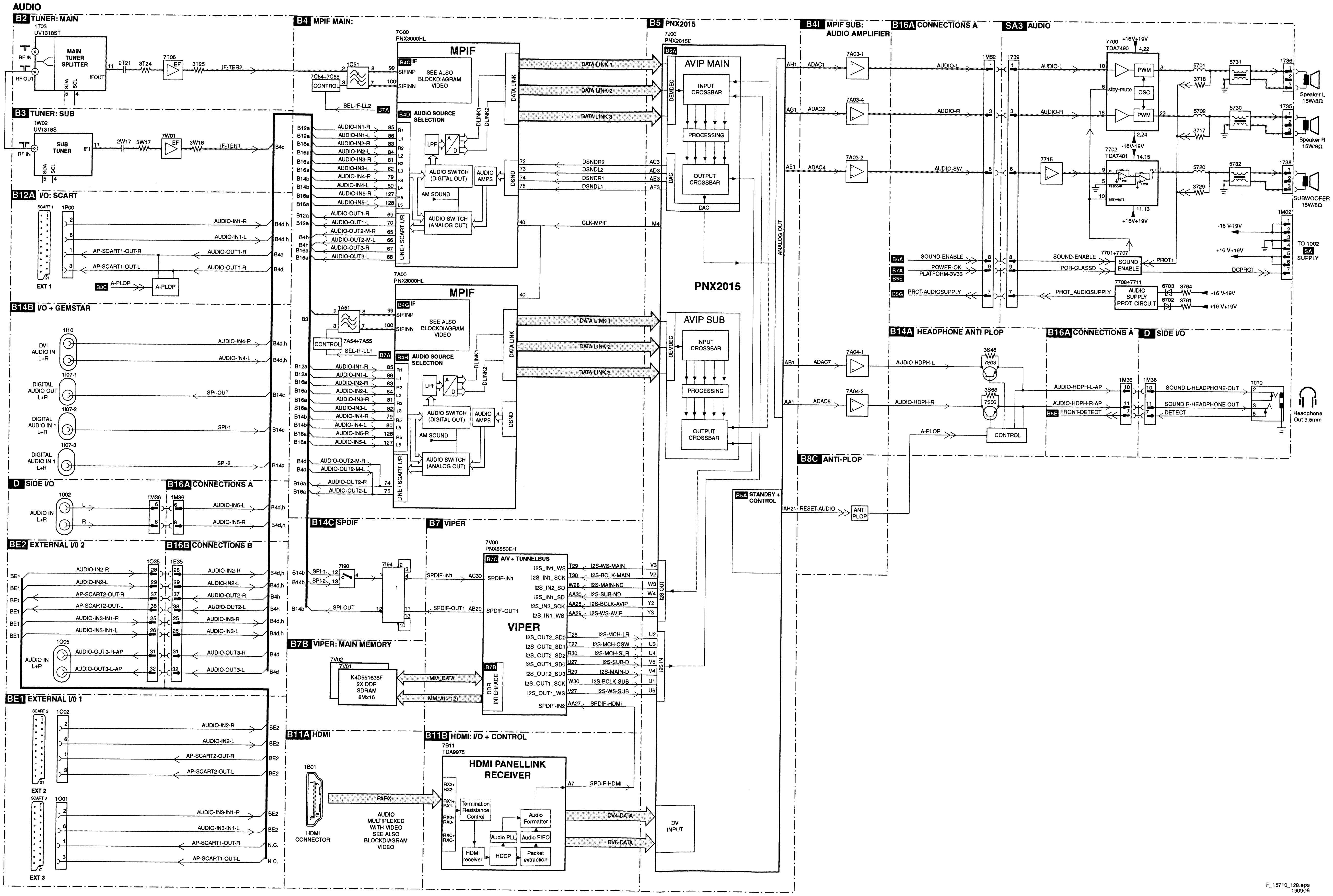
190905

Block Diagram Video


VIDEO
B2 TUNER: MAIN
1T03 UV1318ST
MAIN TUNER SPLITTER
RF IN
RF OUT
IF-TER2
+5VTUNMAIN
AGC2
B3 TUNER: SUB
1W02 UV1318S
SUB TUNER
IF-TER1
+5VTUNSUB
AGC1
B12A I/O: SCART
SCART 1
EXT 1
AV1-AV5-AV6_B-PB
AV1-AV5-AV6_G-Y
AV1-AV5-AV6_R-PR
AV1-AV6_FBL-HSYNC
CVBS-TER-OUT
AV1_CVBS
B14B I/O + GEMSTAR
PR
PB
Y
D SIDE I/O
VIDEO
S VIDEO
Y/CVBS
C
B16A CONNECTION A
FRONT_Y-CVBS
FRONT_C
BE2 EXTERNAL I/O 2
B16B CONNECTION B
AV2-AV4_R-PR
AV2-AV4_G-Y
AV2-AV4_B_PB
AV2-FBL
AV3_CVBS
AV3_STATUS
CVBS-TER-OUT
AV2_Y-CVBS
AV2_C
C-MON-OUT
Y-CVBS-MON-OUT
AV2-STATUS
P50
BE1 EXTERNAL I/O 1
SCART 3
EXT 3
SCART 2
EXT 2
REGIMBEAU
B4 MPIF MAIN:
7C00 PNX3000HL
B4C IF
B4B
SUPPLY + CONTROL
+5VMPIF-MAIN
DIGITAL BLOCK
SCL-DMA-BUS2
SDA-DMA-BUS2
SOUND TRAP
GROUP DELAY
QSS
QSSOUT
TO AM INTERNAL AUDIO SWITCH
CVBSOUTIF
B4A SOURCE SELECTION
CVBS/Y RIM
CLAMP
C-PRIM
MPIF
CVBS-OUTA
CVBS-OUTB
N.C.
DATA LINK 1
DATA LINK 3
DATA LINK 2
STROBE1N-MAIN
STROBE1P-MAIN
DATA1N-MAIN
DATA1P-MAIN
STROBE3N-MAIN
STROBE3P-MAIN
DATA3N-MAIN
DATA3P-MAIN
STROBE2N-MAIN
STROBE2P-MAIN
DATA2N-MAIN
DATA2P-MAIN
HV-PRM-MAIN
CLK-MPIF
YUV RGB
LEVEL ADAPT INV. PAL
MONO SEC.
CVBS SEC
2nd SIF A/D
TIMING CIRCUIT
CLP PRIM
CLP SEC
CLP yuv
B4 MPIF SUB:
7A00 PNX3000HL
B4C IF
B4F
+5VMPIF-SUB
B4E SOURCE SELECTION
MPIF
STROBE1N-SUB
STROBE1P-SUB
DATA1N-SUB
DATA1P-SUB
STROBE3N-SUB
STROBE3P-SUB
DATA3N-SUB
DATA3P-SUB
STROBE2N-SUB
STROBE2P-SUB
DATA2N-SUB
DATA2P-SUB
HV-PRM-SUB
CVBSOUTIF-SUB
CVBSOUTIF-MAIN
B11A HDMI
HDMI CONNECTOR
DVI CONNECTOR
HPD-HIRATE
B11B HDMI: I/O + CONTROL
7B11 TDA9975
HDMI
Termination resistance control
Video output formatter
VHREF timing generator
Upsample
Decoder
HDMI receiver
HDCP
I2C slave interface
Line time measurement
Activity detection & sync selec.
Sync seperator
Slicers
Clocks generator
ADC
DV-VSYNC
DV-HSYNC
AV1-AV6_FBL-HSYNC
AV2-AV4_G-Y
DV1-R-PR
DV1-G-Y
DV1-B-PB
DV4-DATA
DV5-DATA
DV4-CLK
DV-HREF
DV-VREF
DV-FREF
SDA-MM-BUS1
SCL-MM-BUS1
M135-CLK
B5 PNX2015:
7J00 PNX2015E
B5B DV I/O INTERFACE
B5C TUNNELBUS
TUNNEL BUS
B5A AUDIO/VIDEO
PNX2015
AVIP-1
AVIP-2
COLUMBUS 3D Comb filter and noise reduction
MUX
VIP
B5D DDR INTERFACE
B5E STANDBY
STANDBY PROCESSOR See also Block diagram Control
AV2-STATUS
AV3-STATUS
PMX-MA(0-12)
PNX-MDATA (0-15)
MCLK_P
MCLK_N
7L50 K4D261638F
DDR SDRAM 16Mx16
7LA7 M25P05
512K FLASH
SPI-SDO
SPI-CLK
SPI-CSB
SPI-WP
B6 SPIDER:
7R00 T6TE0TBG-0001
SPIDER
TUN-SPIDER-RX-CLKN
TUN-SPIDER-RX-CLKP
TUN-SPIDER-TX-CLKN
TUN-SPIDER-TX-CLKP
TUN-SPIDER-RX-DATA
TUN-SPIDER-TX-DATA
TUNNELBUS
DDR INTERFACE
A(0-11)
DQ(0-15)
B6B SPIDER: DDR
7R01 K4H561638F
DDR SDRAM 16Mx16
B7 VIPER:
7V00 PNX8550
B7C TUNNELBUS
B7B DDR INTERFACE
VIPER
Tunnel
Memory controller
TUN-VIPER-RX-CLKP
TX-CLKN
TX-CLKP
TUN-VIPER-RX-DATA
TUN-VIPER-TX-DATA
I2S
DVD CSS
2D DE
B7C AUDIO/VIDEO
2-Layer secondary video out
Dual SD single HD MPEG2 decoder
250Mhz MIPS32 CPU
Temporal noise redux
Scaler and de-interlacer
Video TS router
1SD+1HD YUV Video in
Dual con acces
5 Layer primary video out HD/VGA/656
DV1_CLK
DV2_CLK
DV3_CLK
DV1F-CLK
DV2A-CLK
DV3F-CLK
DV1_DATA(0-9)
DV2_DATA(0-9)
DV3_DATA(0-9)
DV1F-DATA 0 TO 7
DV2A-DATA 0 TO 7
DV3F-DATA 0 TO 7
DV-ROUT
DV-GOUT
DV-BOUT
B7B VIPER: MAIN MEMORY
7V01 K4D551638F
DDR SDRAM 1 16Mx16
7V02 K4D551638F
DDR SDRAM 2 16Mx16
MM_DATA
MM_A(0-12)
DAC-CVBS
B8B
7F55
Y-CVBS-MON-OUT
C-MON-OUT
HPD-HIRATE
M135-CLK
B11A
B11B
B9 MOP:
7G04 EP1C12F256C7N
B9D
MOP PICTURE ENHANCEMENT
I/O
B9D MOP: IO
7G05 DS90C385MTD
LVDS TRANSMITTER
7G06 DS90C385MTD
LVDS TRANSMITTER
R/G/B
RES
OR
(Optional)
B9C MOP: LVDS
1G50
VDISP
LVDS CONNECTOR TO DISPLAY
F_15710_127.eps 190905

Block Diagram Audio


AUDIO
B2 TUNER: MAIN
1T03
UV1318ST
MAIN TUNER SPLITTER
RF IN
RF OUT
IFOUT
SDA
SCL
IF-TER2
B3 TUNER: SUB
1W02
UV1318S
SUB TUNER
IF-TER1
B12A I/O: SCART
1P00
EXT 1
AUDIO-IN1-R
AUDIO-IN1-L
AP-SCART1-OUT-R
AP-SCART1-OUT-L
AUDIO-OUT1-R
A-PLOP
B14B I/O + GEMSTAR
DVI AUDIO IN L+R
AUDIO-IN4-R
AUDIO-IN4-L
DIGITAL AUDIO OUT L+R
SPI-OUT
DIGITAL AUDIO IN 1 L+R
SPI-1
SPI-2
D SIDE I/O
B16A CONNECTIONS A
AUDIO IN L+R
AUDIO-IN5-L
AUDIO-IN5-R
BE2 EXTERNAL I/0 2
B16B CONNECTIONS B
AUDIO-IN2-R
AUDIO-IN2-L
AP-SCART2-OUT-R
AP-SCART2-OUT-L
AUDIO-OUT2-R
AUDIO-OUT2-L
AUDIO-IN3-IN1-R
AUDIO-IN3-IN1-L
AUDIO-IN3-R
AUDIO-IN3-L
AUDIO-OUT3-R-AP
AUDIO-OUT3-L-AP
AUDIO-OUT3-R
AUDIO-OUT3-L
BE1 EXTERNAL I/0 1
EXT 2
EXT 3
AP-SCART1-OUT-R
AP-SCART1-OUT-L
N.C.
B4 MPIF MAIN:
7C00
PNX3000HL
MPIF
IF
SIFINP
SIFINN
SEE ALSO BLOCKDIAGRAM VIDEO
CONTROL
SEL-IF-LL2
AUDIO SOURCE SELECTION
LPF
AUDIO SWITCH (DIGITAL OUT)
AUDIO AMPS
AM SOUND
AUDIO SWITCH (ANALOG OUT)
LINE / SCART L/R
DATA LINK
DSND
DLINK1
DLINK2
DATA LINK 1
DATA LINK 2
DATA LINK 3
DSNDR2
DSNDL2
DSNDR1
DSNDL1
CLK-MPIF
7A00
PNX3000HL
SEL-IF-LL1
B14C SPDIF
SPI-OUT
SPDIF-IN1
SPDIF-OUT1
B7 VIPER
7V00
PNX8550EH
A/V + TUNNELBUS
VIPER
I2S-WS-MAIN
I2S-BCLK-MAIN
I2S-MAIN-ND
I2S-SUB-ND
I2S-BCLK-AVIP
I2S-WS-AVIP
I2S-MCH-LR
I2S-MCH-CSW
I2S-MCH-SLR
I2S-SUB-D
I2S-MAIN-D
I2S-BCLK-SUB
I2S-WS-SUB
SPDIF-HDMI
I2S OUT
I2S IN
B7B VIPER: MAIN MEMORY
7V02
7V01
K4D551638F 2X DDR SDRAM 8Mx16
MM_DATA
MM_A(0-12)
DDR INTERFACE
B11A HDMI
1B01
HDMI CONNECTOR
PARX
AUDIO MULTIPLEXED WITH VIDEO SEE ALSO BLOCKDIAGRAM VIDEO
B11B HDMI: I/O + CONTROL
7B11
TDA9975
HDMI PANELLINK RECEIVER
Termination Resistance Control
HDMI receiver
HDCP
Audio PLL
Audio Formatter
Audio FIFO
Packet extraction
DV4-DATA
DV5-DATA
DV INPUT
B5 PNX2015
7J00
PNX2015E
AVIP MAIN
INPUT CROSSBAR
PROCESSING
OUTPUT CROSSBAR
DEMDEC
DAC
PNX2015
AVIP SUB
ANALOG OUT
B5A STANDBY + CONTROL
RESET-AUDIO
B4I MPIF SUB: AUDIO AMPLIFIER
7A03-1
7A03-4
7A03-2
ADAC1
ADAC2
ADAC4
AUDIO-L
AUDIO-R
AUDIO-SW
B16A CONNECTIONS A
1M52
1739
SA3 AUDIO
7700
TDA7490
PWM
OSC
stby-mute
7702
TDA7481
7715
+16V+19V
-16V-19V
5701
5731
5702
5730
5720
5732
3718
3717
3729
Speaker L 15W/8Ω
Speaker R 15W/8Ω
SUBWOOFER 15W/8Ω
1736
1735
1738
1M02
TO 1002 SA SUPPLY
SOUND-ENABLE
POWER-OK-PLATFORM-3V33
POR-CLASSD
PROT-AUDIOSUPPLY
PROT_AUDIOSUPPLY
7701+7707
SOUND ENABLE
PROT1
DCPROT
7708+7711
AUDIO SUPPLY PROT. CIRCUIT
6703
3764
6702
3761
-16 V-19V
+16 V+19V
B14A HEADPHONE ANTI PLOP
7A04-1
7A04-2
ADAC7
ADAC8
AUDIO-HDPH-L
AUDIO-HDPH-R
3S46
7S03
3S66
7S06
A-PLOP
CONTROL
B16A CONNECTIONS A
D SIDE I/O
1M36
1010
AUDIO-HDPH-L-AP
AUDIO-HDPH-R-AP
FRONT-DETECT
SOUND L-HEADPHONE-OUT
SOUND R-HEADPHONE-OUT
DETECT
Headphone Out 3.5mm
B8C ANTI-PLOP
ANTI PLOP
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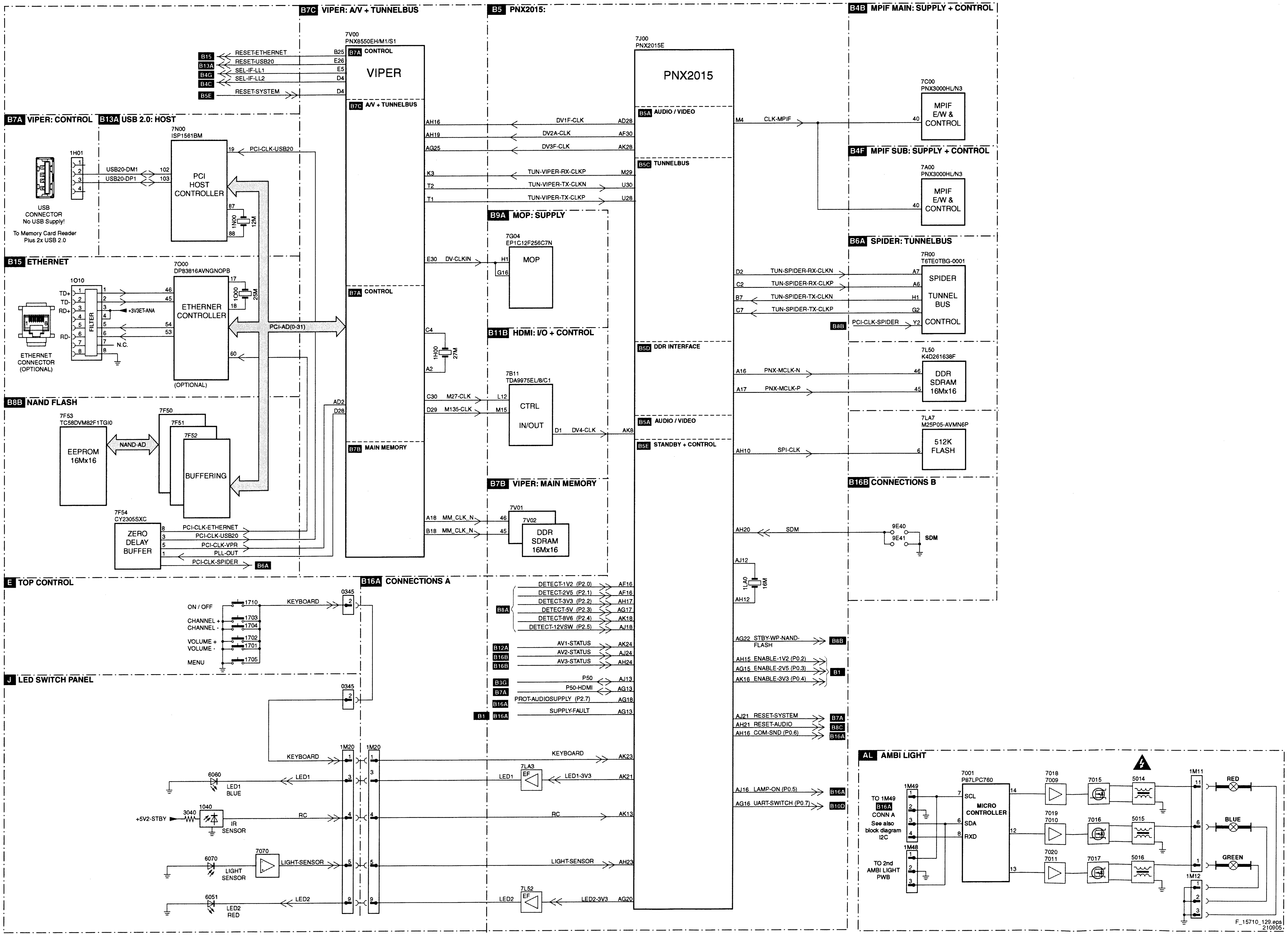
Block Diagram Control + Clock Signals

CONTROL + CLOCK SIGNALS


B7C VIPER: A/V + TUNNELBUS
B5 PNX2015:
B4B MPIF MAIN: SUPPLY + CONTROL
7V00
PNX8550EH/M1/S1
B7A CONTROL
VIPER
B15 RESET-ETHERNET B25
B13A RESET-USB20 E26
B4G SEL-IF-LL1 E5
B4G SEL-IF-LL2 D4
B5E RESET-SYSTEM D4
B7C A/V + TUNNELBUS
7J00
PNX2015E
PNX2015
B5A AUDIO / VIDEO
B5C TUNNELBUS
AH16 DV1F-CLK AD28
AH19 DV2A-CLK AF30
AG25 DV3F-CLK AK28
K3 TUN-VIPER-RX-CLKP M29
T2 TUN-VIPER-TX-CLKN U30
T1 TUN-VIPER-TX-CLKP U28
M4 CLK-MPIF
7C00
PNX3000HL/N3
MPIF E/W & CONTROL
40
B4F MPIF SUB: SUPPLY + CONTROL
7A00
PNX3000HL/N3
MPIF E/W & CONTROL
40
B7A VIPER: CONTROL
B13A USB 2.0: HOST
7N00
ISP1561BM
1H01
USB20-DM1 102
USB20-DP1 103
PCI HOST CONTROLLER
19 PCI-CLK-USB20
87
88
1N00 12M
USB CONNECTOR
No USB Supply!
To Memory Card Reader Plus 2x USB 2.0
B15 ETHERNET
7O00
DP83816AVNGNOPB
1O10
TD+
TD-
RD+
RD-
FILTER
+3V3ET-ANA
46
45
54
53
N.C.
ETHERNER CONTROLLER
17
18
1O00 25M
60
(OPTIONAL)
ETHERNET CONNECTOR (OPTIONAL)
PCI-AD(0-31)
B7A CONTROL
B9A MOP: SUPPLY
7G04
EP1C12F256C7N
E30 DV-CLKIN H1
G16
MOP
C4
A2
1H00 27M
B11B HDMI: I/O + CONTROL
7B11
TDA9975EL/8/C1
C30 M27-CLK L12
D29 M135-CLK M15
CTRL IN/OUT
D1 DV4-CLK AK8
B5D DDR INTERFACE
B5A AUDIO / VIDEO
B5E STANDBY + CONTROL
B8B NAND FLASH
7F53
TC58DVM82F1TGI0
EEPROM 16Mx16
NAND-AD
7F50
7F51
7F52
BUFFERING
AD2
D28
B7B MAIN MEMORY
B7B VIPER: MAIN MEMORY
7V01
7V02
A18 MM_CLK_N 46
B18 MM_CLK_N 45
DDR SDRAM 16Mx16
7F54
CY2305SXC
ZERO DELAY BUFFER
8 PCI-CLK-ETHERNET
3 PCI-CLK-USB20
5 PCI-CLK-VPR
1 PLL-OUT
PCI-CLK-SPIDER
B6A
B6A SPIDER: TUNNELBUS
7R00
T6TE0TBG-0001
D2 TUN-SPIDER-RX-CLKN A7
C2 TUN-SPIDER-RX-CLKP A6
B7 TUN-SPIDER-TX-CLKN H1
C7 TUN-SPIDER-TX-CLKP G2
B8B PCI-CLK-SPIDER Y2
SPIDER TUNNEL BUS CONTROL
7L50
K4D261638F
A16 PNX-MCLK-N 46
A17 PNX-MCLK-P 45
DDR SDRAM 16Mx16
7LA7
M25P05-AVMN6P
AH10 SPI-CLK 6
512K FLASH
B16B CONNECTIONS B
AH20 SDM
9E40
9E41
SDM
AJ12
1LA0 16M
AH12
E TOP CONTROL
B16A CONNECTIONS A
0345
KEYBOARD
ON / OFF 1710
CHANNEL + 1703
CHANNEL - 1704
VOLUME + 1702
VOLUME - 1701
MENU 1705
B8A
DETECT-1V2 (P2.0) AF16
DETECT-2V5 (P2.1) AF16
DETECT-3V3 (P2.2) AH17
DETECT-5V (P2.3) AG17
DETECT-8V6 (P2.4) AK18
DETECT-12VSW (P2.5) AJ18
B12A AV1-STATUS AK24
B16B AV2-STATUS AJ24
B16B AV3-STATUS AH24
B3G P50 AJ13
B7A P50-HDMI AG13
B16A PROT-AUDIOSUPPLY (P2.7) AG18
B1 B16A SUPPLY-FAULT AG13
AG22 STBY-WP-NAND-FLASH B8B
AH15 ENABLE-1V2 (P0.2)
AG15 ENABLE-2V5 (P0.3)
AK16 ENABLE-3V3 (P0.4)
B1
AJ21 RESET-SYSTEM B7A
AH21 RESET-AUDIO B8C
AH16 COM-SND (P0.6) B16A
AJ16 LAMP-ON (P0.5) B16A
AG16 UART-SWITCH (P0.7) B10D
J LED SWITCH PANEL
0345
1M20
1M20
KEYBOARD
KEYBOARD AK23
6060
LED1
LED1 BLUE
7LA3
EF
LED1 LED1-3V3 AK21
+5V2-STBY
3040
1040
IR SENSOR
RC
RC AK13
7070
6070
LIGHT SENSOR
LIGHT-SENSOR
LIGHT-SENSOR AH23
6051
LED2
LED2 RED
7L52
EF
LED2 LED2-3V3 AG20
AL AMBI LIGHT
1M49
TO 1M49 B16A CONN A
See also block diagram I2C
1M48
TO 2nd AMBI LIGHT PWB
7001
P87LPC760
SCL
MICRO CONTROLLER
SDA
RXD
7018
7009
7019
7010
7020
7011
7015
7016
7017
5014
5015
5016
1M11
1M12
RED
BLUE
GREEN
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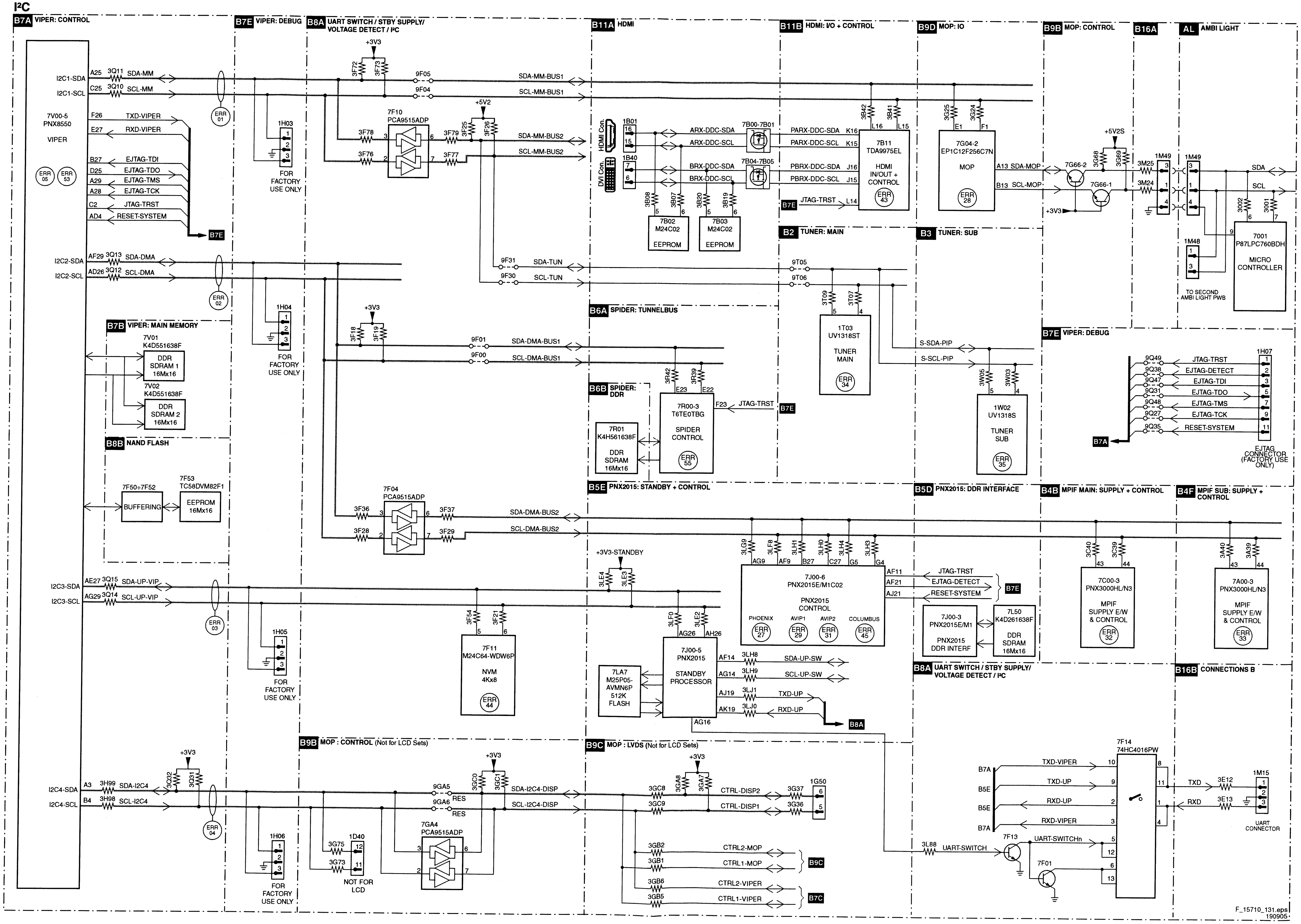
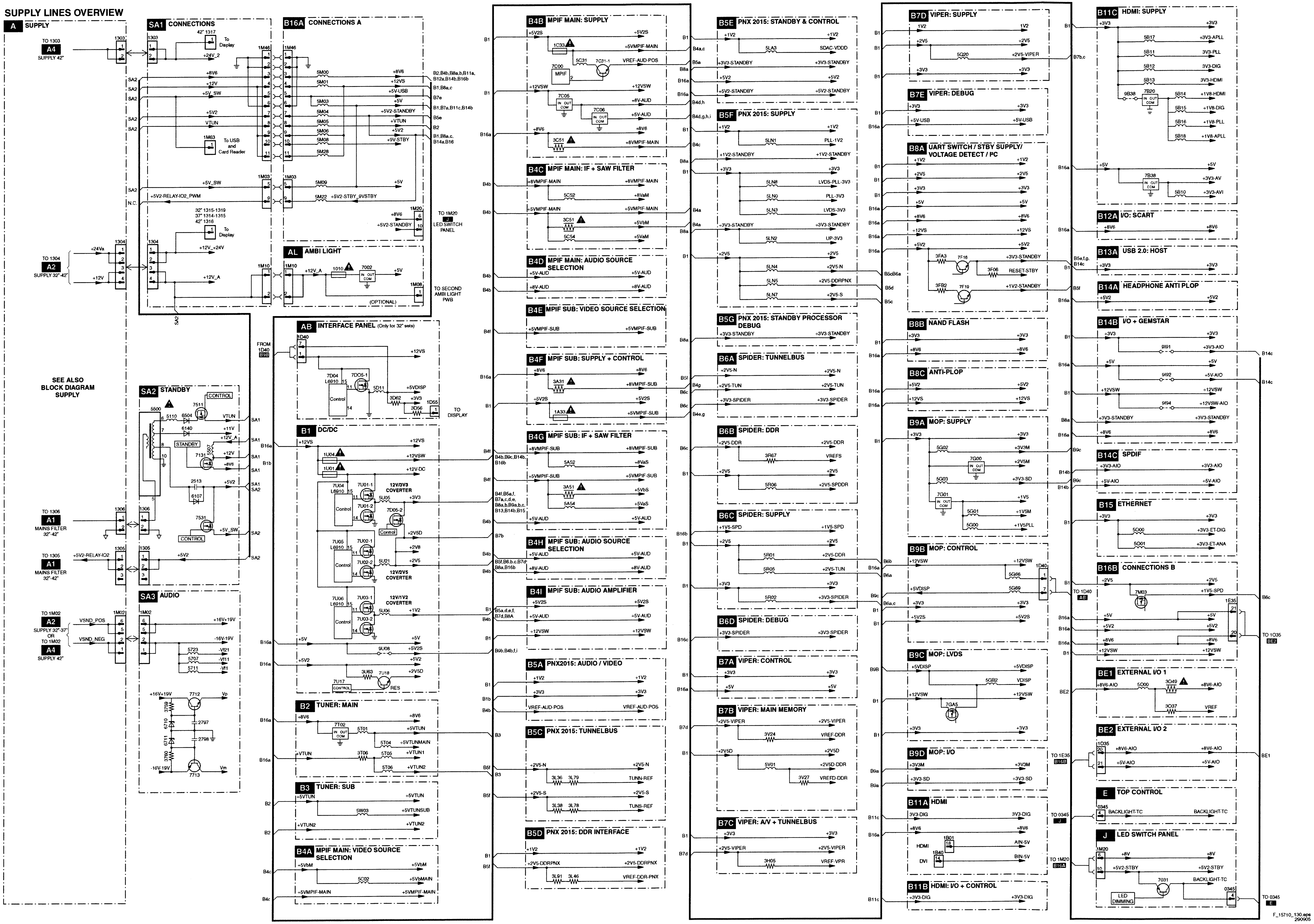
I²C overview

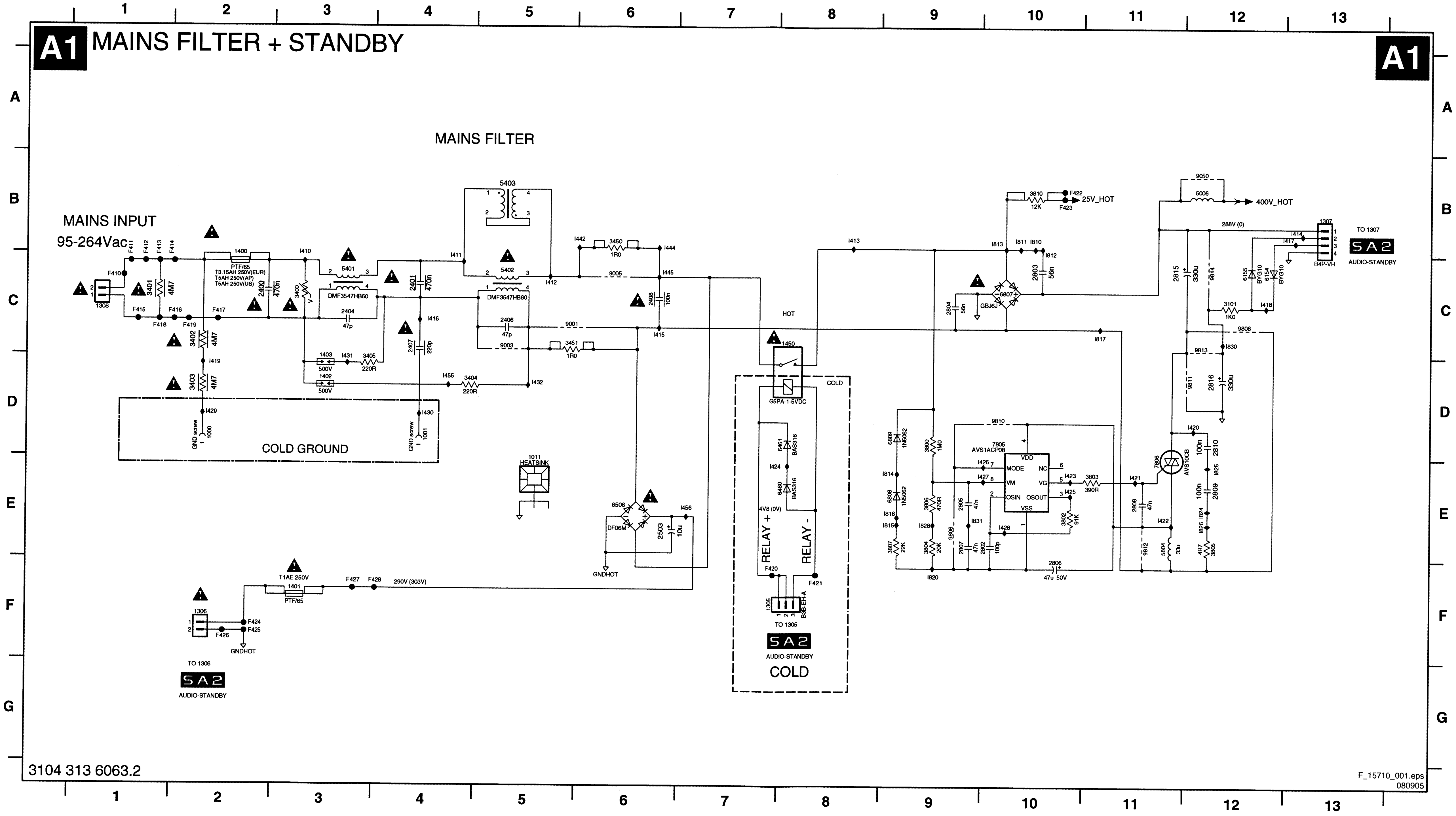

I²C
B7A VIPER: CONTROL
7V00-5
PNX8550
VIPER
I2C1-SDA
I2C1-SCL
A25 3Q11 SDA-MM
C25 3Q10 SCL-MM
F26 TXD-VIPER
E27 RXD-VIPER
B27 EJTAG-TDI
D25 EJTAG-TDO
A29 EJTAG-TMS
A28 EJTAG-TCK
C2 JTAG-TRST
AD4 RESET-SYSTEM
ERR 05
ERR 53
ERR 01
I2C2-SDA
I2C2-SCL
AF29 3Q13 SDA-DMA
AD26 3Q12 SCL-DMA
ERR 02
B7B VIPER: MAIN MEMORY
7V01
K4D551638F
DDR SDRAM 1 16Mx16
7V02
K4D551638F
DDR SDRAM 2 16Mx16
B8B NAND FLASH
7F50÷7F52
BUFFERING
7F53
TC58DVM82F1
EEPROM 16Mx16
I2C3-SDA
I2C3-SCL
AE27 3Q15 SDA-UP-VIP
AG29 3Q14 SCL-UP-VIP
ERR 03
I2C4-SDA
I2C4-SCL
A3 3H99 SDA-I2C4
B4 3H98 SCL-I2C4
ERR 04
+3V3
3Q32
3Q31
B7E VIPER: DEBUG
1H03
1H04
1H05
1H06
FOR FACTORY USE ONLY
B8A UART SWITCH / STBY SUPPLY/ VOLTAGE DETECT / I²C
+3V3
3F72
3F73
9F05
9F04
SDA-MM-BUS1
SCL-MM-BUS1
+5V2
7F10
PCA9515ADP
3F78
3F76
3F79
3F77
3F25
3F26
SDA-MM-BUS2
SCL-MM-BUS2
9F31 SDA-TUN
9F30 SCL-TUN
3F18
3F19
9F01 SDA-DMA-BUS1
9F00 SCL-DMA-BUS1
7F04
PCA9515ADP
3F36
3F28
3F37
3F29
SDA-DMA-BUS2
SCL-DMA-BUS2
3F54
3F21
7F11
M24C64-WDW6P
NVM 4Kx8
ERR 44
B9B MOP : CONTROL (Not for LCD Sets)
+3V3
3GC0
3GC1
9GA5
9GA6
RES
SDA-I2C4-DISP
SCL-I2C4-DISP
3G75
3G73
1D40
NOT FOR LCD
7GA4
PCA9515ADP
B11A HDMI
HDMI Con.
DVI Con.
1B01
1B40
ARX-DDC-SDA
ARX-DDC-SCL
BRX-DDC-SDA
BRX-DDC-SCL
7B00-7B01
7B04-7B05
3B08
3B07
3B20
3B19
7B02
M24C02
EEPROM
7B03
M24C02
EEPROM
B6A SPIDER: TUNNELBUS
3R42
3R39
B6B SPIDER: DDR
7R01
K4H561638F
DDR SDRAM 16Mx16
7R00-3
T6TE0TBG
SPIDER CONTROL
F23 JTAG-TRST
ERR 55
B5E PNX2015: STANDBY + CONTROL
+3V3-STANDBY
3LE4
3LE3
3LF0
3LE2
7J00-5
PNX2015
STANDBY PROCESSOR
AF14 3LH8 SDA-UP-SW
AG14 3LH9 SCL-UP-SW
AJ19 3LJ1 TXD-UP
AK19 3LJ0 RXD-UP
AG16
7LA7
M25P05-AVMN6P
512K FLASH
B9C MOP : LVDS (Not for LCD Sets)
+3V3
3GC8
3GC9
3GA8
3GA7
CTRL-DISP2
CTRL-DISP1
3G37
3G36
1G50
3GB2 CTRL2-MOP
3GB1 CTRL1-MOP
3GB6 CTRL2-VIPER
3GB5 CTRL1-VIPER
B9C
B7C
B11B HDMI: I/O + CONTROL
3B42
3B41
PARX-DDC-SDA K16
PARX-DDC-SCL K15
PBRX-DDC-SDA J16
PBRX-DDC-SCL J15
JTAG-TRST L14
7B11
TDA9975EL
HDMI IN/OUT + CONTROL
ERR 43
B2 TUNER: MAIN
9T05
9T06
3T09
3T07
1T03
UV1318ST
TUNER MAIN
ERR 34
3LG9
3LF8
3LH1
3LH0
3LH4
3LH3
7J00-6
PNX2015E/M1C02
PNX2015 CONTROL
PHOENIX ERR 27
AVIP1 ERR 29
AVIP2 ERR 31
COLUMBUS ERR 45
AF11 JTAG-TRST
AF21 EJTAG-DETECT
AJ21 RESET-SYSTEM
B9D MOP: IO
3G25
3G24
7G04-2
EP1C12F256C7N
MOP
ERR 28
A13 SDA-MOP
B13 SCL-MOP
B3 TUNER: SUB
S-SDA-PIP
S-SCL-PIP
3W05
3W03
1W02
UV1318S
TUNER SUB
ERR 35
B5D PNX2015: DDR INTERFACE
7J00-3
PNX2015E/M1
PNX2015 DDR INTERF
7L50
K4D261638F
DDR SDRAM 16Mx16
B8A UART SWITCH / STBY SUPPLY/ VOLTAGE DETECT / I²C
7F14
74HC4016PW
TXD-VIPER
TXD-UP
RXD-UP
RXD-VIPER
UART-SWITCHn
3L88 UART-SWITCH
7F13
7F01
TXD 3E12
RXD 3E13
1M15
UART CONNECTOR
B9B MOP: CONTROL
+5V2S
3G68
3G69
7G66-2
7G66-1
+3V3
B16A
3M25
3M24
1M49
AL AMBI LIGHT
SDA
SCL
3002
3001
7001
P87LPC760BDH
MICRO CONTROLLER
1M48
TO SECOND AMBI LIGHT PWB
B7E VIPER: DEBUG
1H07
9Q49 JTAG-TRST
9Q38 EJTAG-DETECT
9Q47 EJTAG-TDI
9Q31 EJTAG-TDO
9Q48 EJTAG-TMS
9Q27 EJTAG-TCK
9Q35 RESET-SYSTEM
EJTAG CONNECTOR (FACTORY USE ONLY)
B4B MPIF MAIN: SUPPLY + CONTROL
3C40
3C39
7C00-3
PNX3000HL/N3
MPIF SUPPLY E/W & CONTROL
ERR 32
B4F MPIF SUB: SUPPLY + CONTROL
3A40
3A39
7A00-3
PNX3000HL/N3
MPIF SUPPLY E/W & CONTROL
ERR 33
B16B CONNECTIONS B
F_15710_131.eps
190905

Supply Lines Overview


SUPPLY LINES OVERVIEW
A SUPPLY
SA1 CONNECTIONS
B16A CONNECTIONS A
AL AMBI LIGHT
AB INTERFACE PANEL (Only for 32" sets)
B1 DC/DC
B2 TUNER: MAIN
B3 TUNER: SUB
B4A MPIF MAIN: VIDEO SOURCE SELECTION
SA2 STANDBY
SA3 AUDIO
SEE ALSO BLOCK DIAGRAM SUPPLY
B4B MPIF MAIN: SUPPLY
B4C MPIF MAIN: IF + SAW FILTER
B4D MPIF MAIN: AUDIO SOURCE SELECTION
B4E MPIF SUB: VIDEO SOURCE SELECTION
B4F MPIF SUB: SUPPLY + CONTROL
B4G MPIF SUB: IF + SAW FILTER
B4H MPIF SUB: AUDIO SOURCE SELECTION
B4I MPIF SUB: AUDIO AMPLIFIER
B5A PNX2015: AUDIO / VIDEO
B5C PNX 2015: TUNNELBUS
B5D PNX 2015: DDR INTERFACE
B5E PNX 2015: STANDBY & CONTROL
B5F PNX 2015: SUPPLY
B5G PNX 2015: STANDBY PROCESSOR DEBUG
B6A SPIDER: TUNNELBUS
B6B SPIDER: DDR
B6C SPIDER: SUPPLY
B6D SPIDER: DEBUG
B7A VIPER: CONTROL
B7B VIPER: MAIN MEMORY
B7C VIPER: A/V + TUNNELBUS
B7D VIPER: SUPPLY
B7E VIPER: DEBUG
B8A UART SWITCH / STBY SUPPLY/ VOLTAGE DETECT / PC
B8B NAND FLASH
B8C ANTI-PLOP
B9A MOP: SUPPLY
B9B MOP: CONTROL
B9C MOP: LVDS
B9D MOP: I/O
B11A HDMI
B11B HDMI: I/O + CONTROL
B11C HDMI: SUPPLY
B12A I/O: SCART
B13A USB 2.0: HOST
B14A HEADPHONE ANTI PLOP
B14B I/O + GEMSTAR
B14C SPDIF
B15 ETHERNET
B16B CONNECTIONS B
BE1 EXTERNAL I/O 1
BE2 EXTERNAL I/O 2
E TOP CONTROL
J LED SWITCH PANEL
TO 1303 A4 SUPPLY 42"
TO 1304 A2 SUPPLY 32"-42"
TO 1306 A1 MAINS FILTER 32"-42"
TO 1305 A1 MAINS FILTER 32"-42"
TO 1M02 A2 SUPPLY 32"-37" OR TO 1M02 A4 SUPPLY 42"
TO 1M20 LED SWITCH PANEL
TO SECOND AMBI LIGHT PWB
TO DISPLAY
F_15710_130.eps 290905

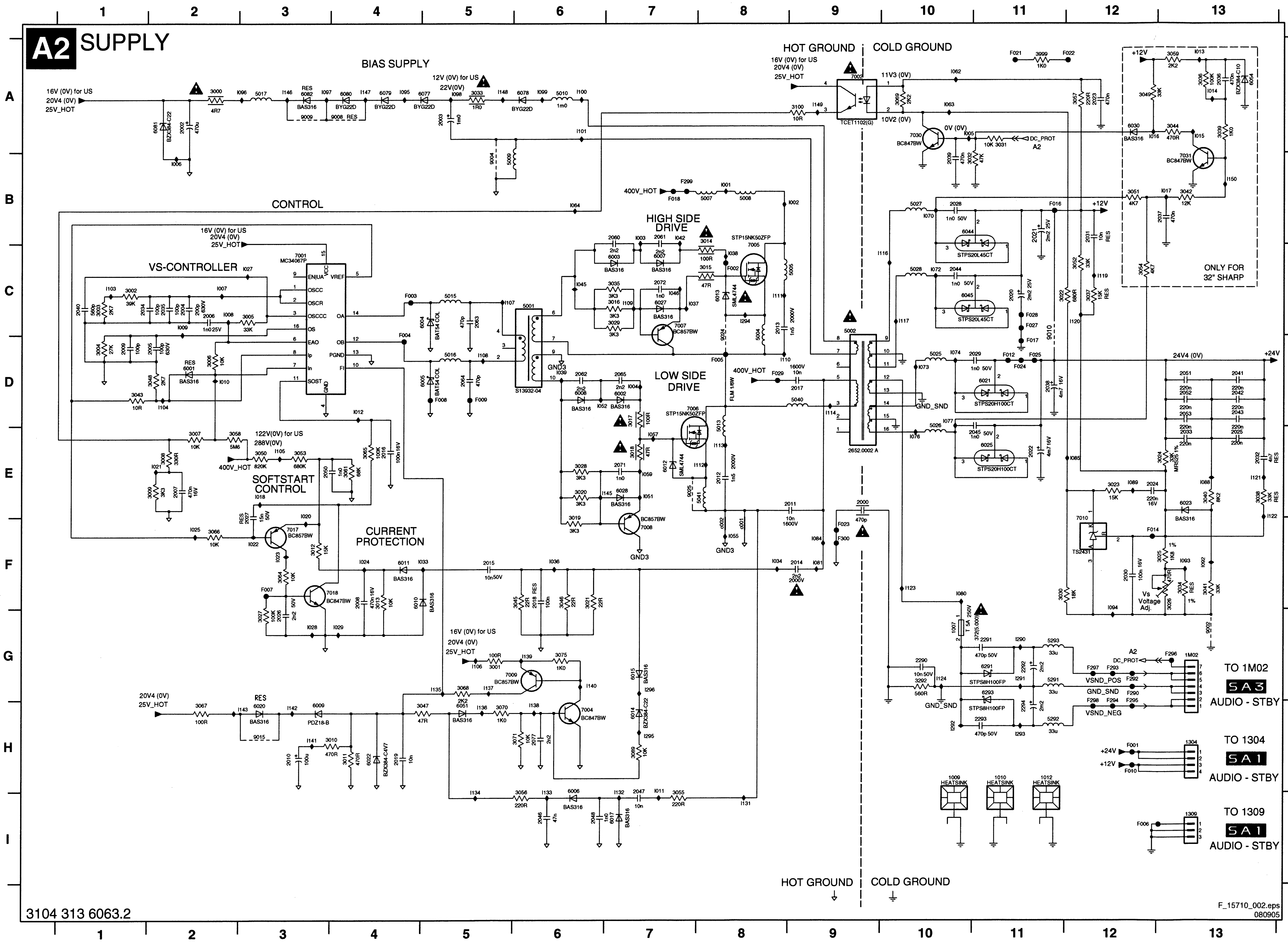
7. Circuit Diagrams and PWB Layouts

LCD Supply (32"): Mains Filter + Standby


A1 MAINS FILTER + STANDBY
MAINS FILTER
MAINS INPUT
95-264Vac
COLD GROUND
HOT
COLD
RELAY +
RELAY -
G5PA-1-5VDC
DMF3547HB60
DF06M
GBJ6J
AVS1ACP08
AVS10CB
BYG10
BAS316
1N5062
B4P-VH
B3B-EH-A
T3.15AH 250V(EUR)
T5AH 250V(AP)
T5AH 250V(US)
T1AE 250V
PTF/65
1011 HEATSINK
GNDHOT
25V_HOT
400V_HOT
290V (303V)
288V (0)
4V8 (0V)
TO 1307
TO 1306
TO 1305
SA2
AUDIO-STANDBY
3104 313 6063.2
F_15710_001.eps
080905

1000	D2
1001	D4
1011	E5
1305	F7
1306	F2
1307	B13
1308	C1
1400	C2
1401	F3
1402	D3
1403	D3
1450	C8
2400	C2
2401	C4
2404	C3
2406	C5
2407	C4
2408	C6
2503	E6
2802	E10
2803	C10
2804	C9
2805	E9
2806	F10
2807	E9
2808	E11
2809	E12
2810	D12
2815	C11
2816	D12
3101	C12
3400	C3
3401	C1
3402	C2
3403	D2
3404	D4
3405	D3
3450	B6
3451	C5
3800	D9
3802	E10
3803	E11
3804	E9
3805	E12
3806	E9
3807	E9
3810	B10
5006	B12
5401	C3
5402	C5
5403	B5
5804	E11
6154	C12
6155	C12
6460	E8
6461	D8
6506	E6
6807	C10
6808	E9
6809	D9
7805	D10
7806	E11
9001	C5
9003	C5
9005	C6
9050	B12
9806	E9
9808	C12
9810	D10
9811	D12
9812	E11
9813	C12
9814	C12
F410	C1
F411	B1
F412	B1
F413	B1
F414	B1
F415	C1
F416	C2
F417	C2
F418	C1
F419	C2
F420	F7
F421	F8
F422	B10
F423	B10
F424	F2
F425	F2
F426	F2
F427	F3
F428	F4
I410	B3
I411	C4
I412	C5
I413	B8
I414	B13
I415	C6
I416	C4
I417	B13
I418	C12
I419	D2
I420	D12
I421	E11
I422	E11
I423	E10
I424	E7
I425	E10
I426	E10
I427	E10
I428	E10
I429	D2
I430	D4
I431	D3
I432	D5
I442	B6
I444	B6
I445	C6
I455	D4
I456	E7
I810	B10
I811	B10
I812	B10
I813	B10
I814	E9
I815	E9
I816	E9
I817	C11
I820	F9
I824	E12
I825	E12
I826	E12
I828	E9
I830	C12
I831	E9

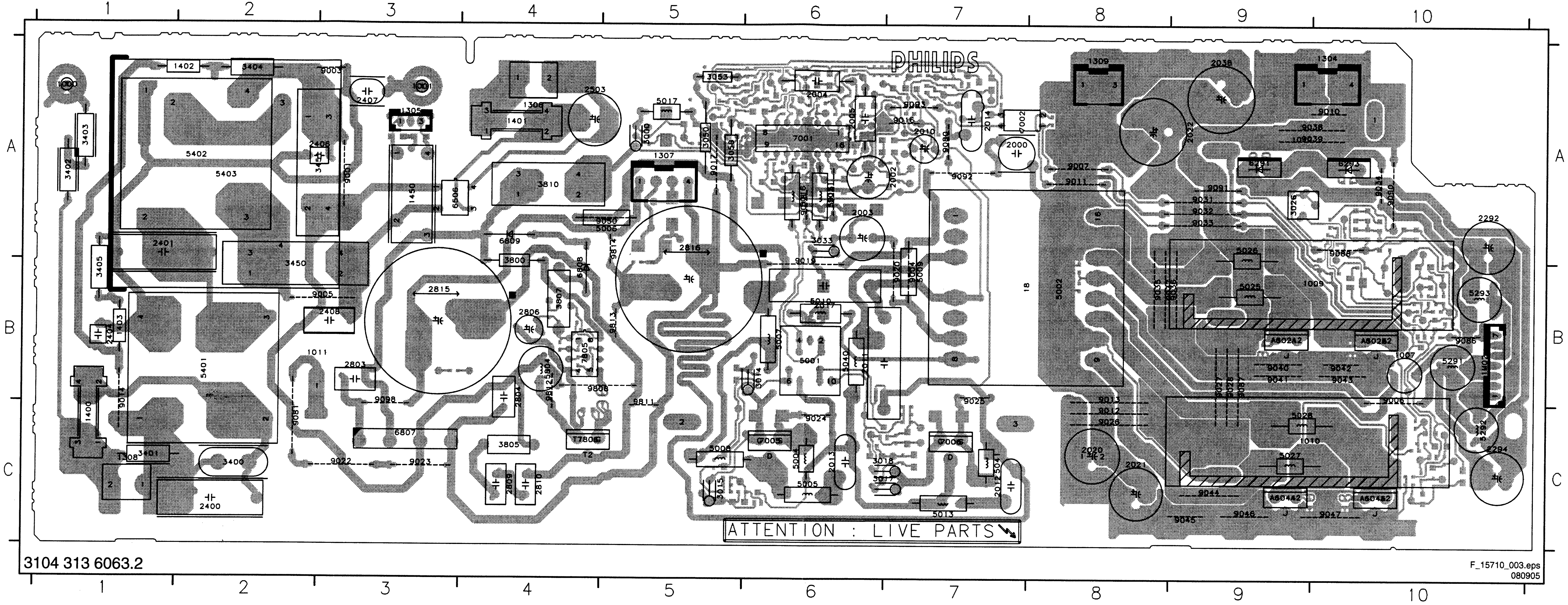
LCD Supply (32"): Supply


A2 SUPPLY
BIAS SUPPLY
CONTROL
VS-CONTROLLER
HIGH SIDE DRIVE
LOW SIDE DRIVE
SOFTSTART CONTROL
CURRENT PROTECTION
HOT GROUND
COLD GROUND
16V (0V) for US
20V4 (0V)
25V_HOT
12V (0V) for US
22V(0V)
400V_HOT
122V(0V) for US
288V(0V)
MC34067P
TCET1102(G)
STP15NK50ZFP
BC857BW
BC847BW
S13932-04
2652 0002 A
STPS20L45CT
STPS20H100CT
STPS8H100FP
TS2431
11V3 (0V)
10V2 (0V)
0V (0V)
DC_PROT
A2
+12V
24V4 (0V)
+24V
GND_SND
ONLY FOR 32" SHARP
Vs Voltage Adj.
GND3
TO 1M02
SA3
AUDIO - STBY
TO 1304
SA1
AUDIO - STBY
TO 1309
SA1
AUDIO - STBY
VSND_POS
GND_SND
VSND_NEG
HEATSINK
3104 313 6063.2
F_15710_002.eps
080905

1007	G10
1009	H10
1010	H11
1012	H11
1304	H13
1309	I13
1M02	G13
2000	E9
2002	A2
2003	A5
2004	C2
2005	D2
2006	C2
2007	E2
2008	F4
2009	D1
2010	H3
2011	E9
2012	E8
2013	C8
2014	F9
2015	F5
2016	E4
2017	D9
2018	F6
2019	H4
2020	C11
2021	B11
2022	E11
2023	A12
2024	E12
2025	E13
2026	G3
2027	E3
2028	B10
2029	D11
2030	F12
2031	B12
2032	E13
2033	E13
2034	C1
2035	C2
2036	A13
2037	B13
2038	D11
2039	B10
2040	C1
2041	D13
2042	D13
2043	D13
2044	C10
2045	E11
2046	I6
2047	I7
2048	I6
2050	E3
2051	D13
2052	D13
2053	D13
2060	C6
2061	B7
2062	D6
2063	C5
2064	D5
2065	D7
2071	E7
2072	C7
2077	H6
2290	G10
2291	G11
2292	G11
2293	H11
2294	H11
3000	A2
3001	G5
3002	C1
3003	C1
3004	D1
3005	C3
3006	D2
3007	E2
3008	E2
3009	E2
3010	H4
3011	H4
3012	F3
3013	F4
3014	B7
3015	C7
3016	C7
3017	D7
3018	E7
3019	F6
3020	E6
3021	F6
3022	C11
3023	E12
3024	E13
3025	F13
3026	G13
3027	G3
3028	E6
3029	C7
3030	F11
3031	A11
3032	B10
3033	A5
3034	F13
3035	C7
3036	A13
3037	C12
3038	E13
3039	A13
3040	E13
3041	F13
3042	B13
3043	D1
3044	A13
3045	F6
3046	F6
3047	H5
3048	D2
3049	A12
3050	E3
3051	B12
3052	C12
3053	E3
3054	C12
3055	I7
3056	I6
3057	A12
3058	E2
3059	A13
3061	E4
3064	F3
3065	E4
3066	F2
3067	H2
3068	G5
3069	A10
3070	H5
3071	H6
3075	G6
3089	H7
3100	A9
3292	G10
3999	A11
5001	C6
5002	C9
5004	C8
5005	C9
5007	B8
5008	B8
5009	B5
5010	A6
5013	D8
5015	C5
5016	D5
5017	A3
5025	D10
5026	E10
5027	B10
5028	C10
5040	D9
5041	E8
5291	G11
5292	H11
5293	G11
6001	D2
6002	D7
6003	C6
6004	C5
6005	D5
6006	I6
6007	C7
6008	D6
6009	H3
6010	F4
6011	F4
6012	E7
6013	C8
6014	H7
6015	G7
6017	I7
6020	H3
6021	D11
6022	H4
6023	E13
6025	E11
6027	C7
6028	E7
6030	A12
6044	B10
6045	C10
6051	H5
6054	A13
6077	A5
6078	A6
6079	A4
6080	A4
6081	A2
6082	A3
6291	G11
6293	G11
7001	C3
7002	A9
7004	H6
7005	C8
7006	D7
7007	C7
7008	F7
7009	G6
7010	E12
7017	F3
7018	F3
7030	A10
7031	B13
9002	G13
9004	B5
9008	A4
9009	A3
9010	C11
9015	H3
9024	C8
9025	E7
F001	H12
F002	C8
F003	C4
F004	D4
F005	D8
F006	I12
F007	F3
F008	D5
F009	D5
F010	H12
F012	D11
F014	F12
F016	B11
F017	D11
F018	B7
F021	A11
F022	A12
F023	F9
F024	D11
F025	D11
F027	C11
F028	C11
F029	D8
F290	G12
F292	G12
F293	G12
F294	H12
F295	H12
F296	G13
F297	G12
F298	H12
F299	B7
F300	F9
I001	B8
I002	B9
I003	B6
I004	D7
I005	A10
I006	B2
I007	C2
I008	C2
I009	C2
I010	D2
I011	H7
I012	D4
I013	A13
I014	A13
I015	A13
I016	A12
I017	B13
I018	E3
I020	E3
I021	E2
I022	F3
I023	F3
I024	F4
I025	F2
I027	C3
I028	G3
I029	G4
I033	F5
I034	F8
I036	F6
I037	C7
I038	B8
I039	D6
I042	B7
I045	C6
I046	C7
I051	E7
I052	D6
I055	F8
I057	E7
I059	E7
I062	A10
I063	A10
I064	B6
I070	B10
I072	C10
I073	D10
I074	D10
I076	E10
I077	D10
I080	F10
I081	F9
I084	F9
I085	E12
I088	E13
I089	E12
I092	F13
I093	F13
I094	F12
I095	A4
I096	A3
I097	A3
I098	A5
I099	A6
I100	A6
I101	A6
I103	C1
I104	D2
I105	E3
I106	G5
I107	C5
I108	D5
I109	C7
I110	D8
I111	C8
I112	E8
I113	E8
I114	D9
I116	C10
I117	C10
I119	C12
I120	C12
I121	E13
I122	E13
I123	F10
I124	G10
I131	I8
I132	I7
I133	I6
I134	I5
I135	G5
I136	H5
I137	G5
I138	H6
I139	G6
I140	G6
I141	H3
I142	H3
I143	H3
I145	E7
I146	A3
I147	A4
I148	A5
I149	A9
I150	B13
I290	G11
I291	G11
I292	H10
I293	H11
I294	C8
I295	H7
I296	G7
c001	F8
c002	F8

Layout LCD Supply (32”) (Top Side)

1000	A1
1001	A3
1007	B10
1009	B9
1010	C9
1011	C3
1012	A9
1304	A10
1305	A3
1306	A4
1307	A5
1308	C1
1309	A8
1400	C1
1401	A4
1402	A2
1403	B1
1450	A3
1M02	B10
2000	A7
2002	A7
2003	A6
2004	A6
2005	A6
2010	A7
2011	B7
2012	C7
2013	C6
2014	A7
2017	B6
2020	C8
2021	C8
2022	A8
2038	A9
2292	A10
2294	C10
2400	C2
2401	B1
2404	B1
2406	A3
2407	A3
2408	B3
2503	A4
2803	B3
2804	B4
2806	B4
2809	C4
2810	C4
2815	A3
2816	A6
3000	A5
3014	B6
3015	C5
3017	C7
3018	C7
3026	A9
3033	A6
3050	A5
3053	A5
3058	A5
3400	C2
3401	C2
3402	A1
3403	A1
3404	A2
3405	B1
3450	A2
3451	A2
3800	A4
3805	C4
3807	B4
3810	A4
5001	B6
5002	A7
5004	C6
5005	C6
5006	A4
5007	B6
5008	C5
5009	B7
5010	B6
5013	C7
5015	A6
5016	A6
5017	A5
5025	B9
5026	A9
5027	C9
5028	C9
5040	B6
5041	C7
5291	B10
5292	C10
5293	B10
5401	B2
5402	A1
5403	A2
5804	B4
6021	B9
6025	B10
6044	C10
6045	C10
6291	A9
6293	A10
6506	A4
6807	C3
6808	A4
6809	A4
7001	A6
7002	A7
7005	C6
7006	C7
7805	B4
7806	C4
9001	A3
9003	A3
9004	A7
9005	B3
9006	C10
9007	A8
9010	A10
9011	A8
9012	C8
9013	B8
9014	B1
9016	A7
9017	A5
9018	A6
9019	A6
9020	B7
9021	A6
9022	C3
9023	C3
9024	C6
9025	B7
9026	C8
9027	B9
9028	B9
9031	A9
9032	A9
9033	A9
9034	A10
9035	B8
9036	B9
9037	B8
9038	A9
9039	A9
9040	B9
9041	B9
9042	B10
9043	B10
9044	C9
9045	C9
9046	C9
9047	C10
9050	A5
9080	A7
9081	C2
9086	B10
9087	B9
9088	A10
9090	A10
9091	A9
9092	A7
9093	A7
9098	B3
9808	B5
9811	B5
9812	C4
9813	B5
9814	A5



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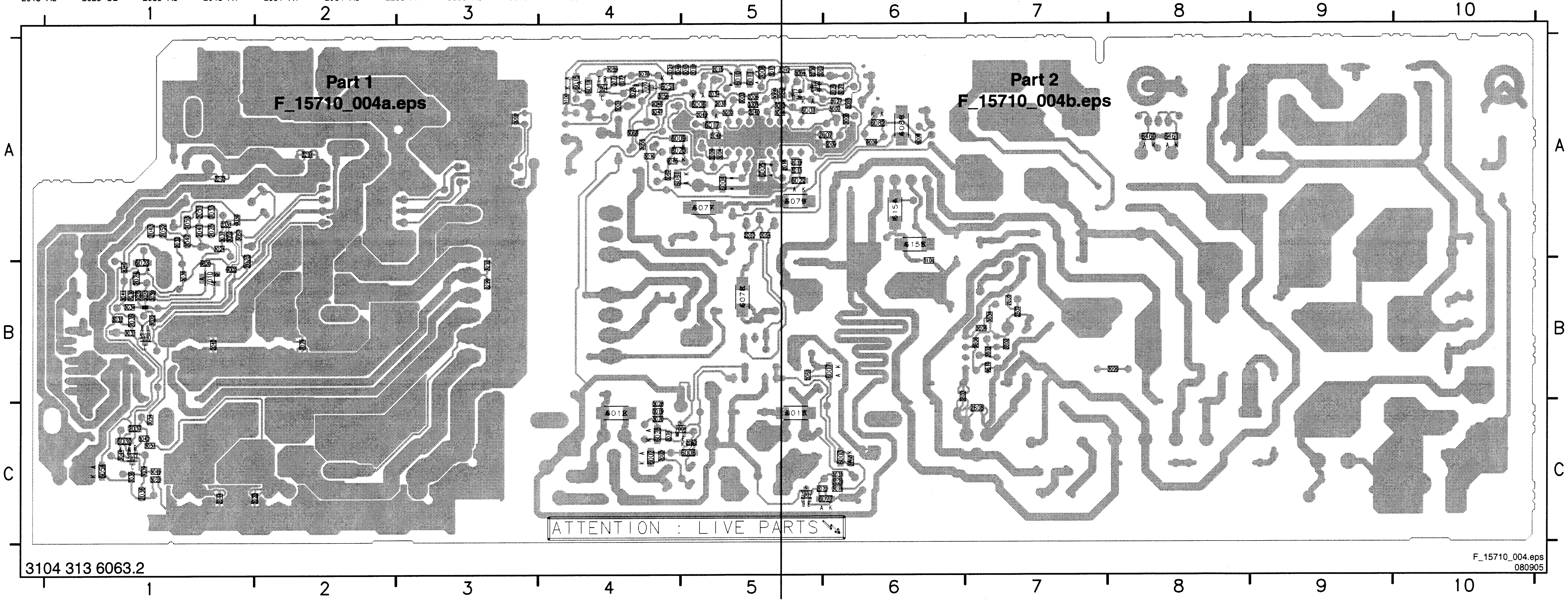
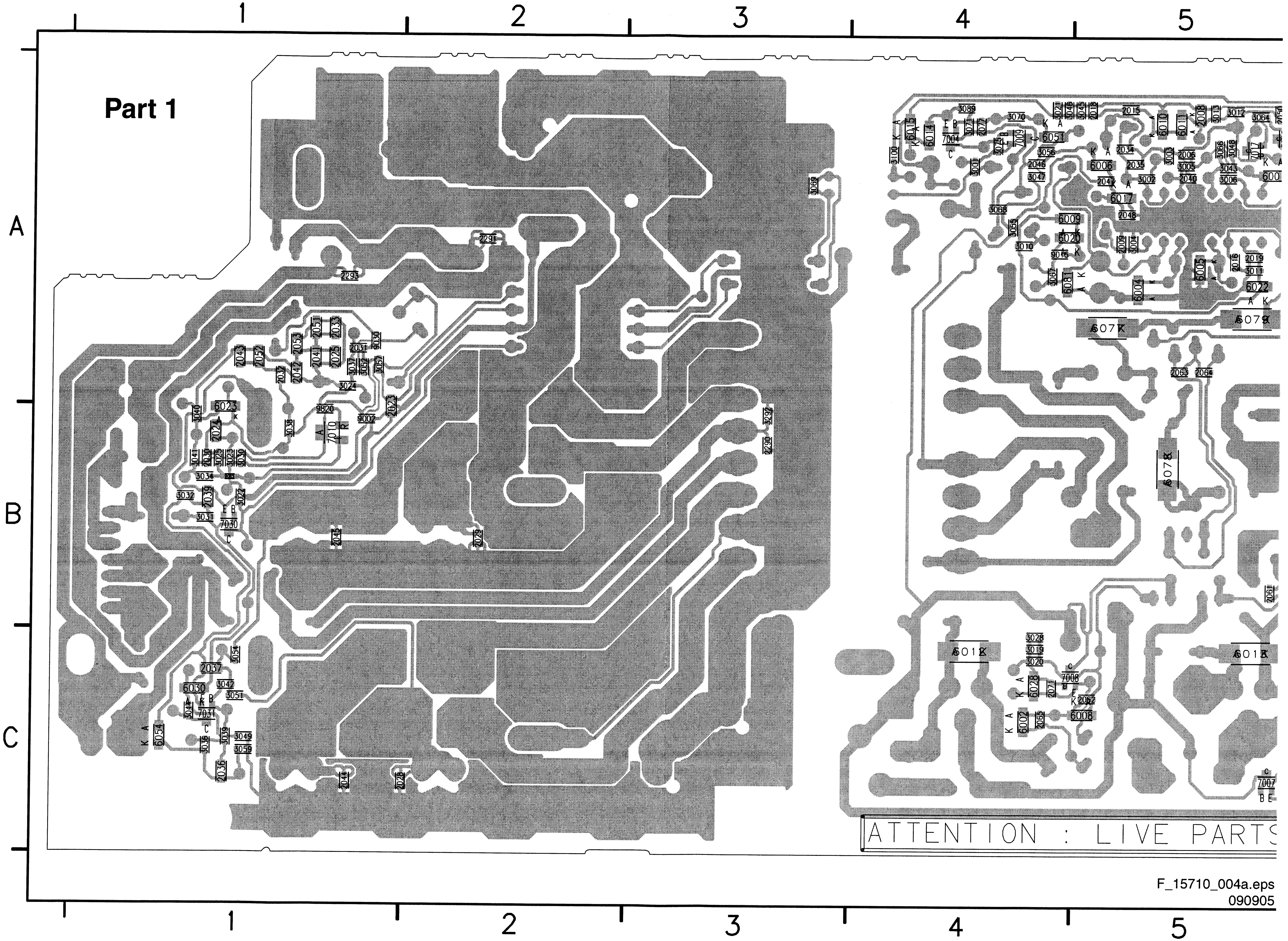
080905

Layout LCD Supply (32”) (Overview Bottom Side)

2006	A5
2007	A6
2008	A5
2009	A5
2015	A5
2016	A5
2018	A5
2019	A5
2023	B1
2024	B1
2025	A1
2026	A6
2027	A6
2028	C2
2029	B2
2030	B1
2031	A1
2032	A1
2033	A1
2034	A5
2035	A5
2036	C1
2037	C1
2039	B1
2040	A5
2041	A1
2042	A1
2043	A1
2044	C1
2045	B1
2046	A4
2047	A5
2048	A5
2050	A5
2051	A1
2052	A1
2053	A1
2060	C6
2061	B5
2062	C5
2063	A5
2064	A5
2065	C4
2071	C4
2072	C5
2077	A4
2290	B3
2291	A2
2293	A1
2802	B7
2805	B7
2807	B7
2808	C7
3001	A4
3002	A5
3003	A5
3004	A5
3005	A5
3006	A5
3007	A6
3008	A6
3009	A6
3010	A4
3011	A5
3012	A5
3013	A5
3016	C6
3019	C4
3020	C4
3021	A4
3022	B1
3023	B1
3024	A1
3025	B1
3027	A6
3028	C4
3029	C6
3030	B1
3031	B1
3032	B1
3034	B1
3035	C6
3036	C1
3037	A1
3038	B1
3039	C1
3040	B1
3041	B1
3042	C1
3043	A5
3044	C1
3045	A5
3046	A4
3047	A4
3048	A5
3049	C1
3051	C1
3052	A1
3054	C1
3055	A4
3056	A4
3057	A1
3059	C1
3061	A5
3064	A5
3065	A6
3066	A5
3067	A4
3068	A4
3069	A3
3070	A4
3071	A4
3075	A4
3089	A4
3100	A4
3101	B6
3292	B3
3802	B7
3803	B6
3804	B7
3806	B7
3999	B8
6001	A5
6002	C4
6003	C6
6004	A5
6005	A5
6006	A5
6007	B6
6008	C5
6009	A4
6010	A5
6011	A5
6012	B4
6013	C5
6014	A4
6015	A4
6017	A5
6020	A4
6022	A5
6023	A1
6027	C6
6028	C4
6030	C1
6051	A4
6054	C1
6077	A5
6078	B5
6079	A5
6080	A6
6081	A4
6082	A6
6154	A6
6155	B6
6460	A8
6461	A8
7004	A4
7007	C5
7008	C4
7009	A4
7010	B1
7017	A5
7018	A5
7030	B1
7031	C1
9002	B1
9008	A6
9009	A6
9015	A4
9030	A1
9085	B1
9806	B7
9810	B7
9820	B1

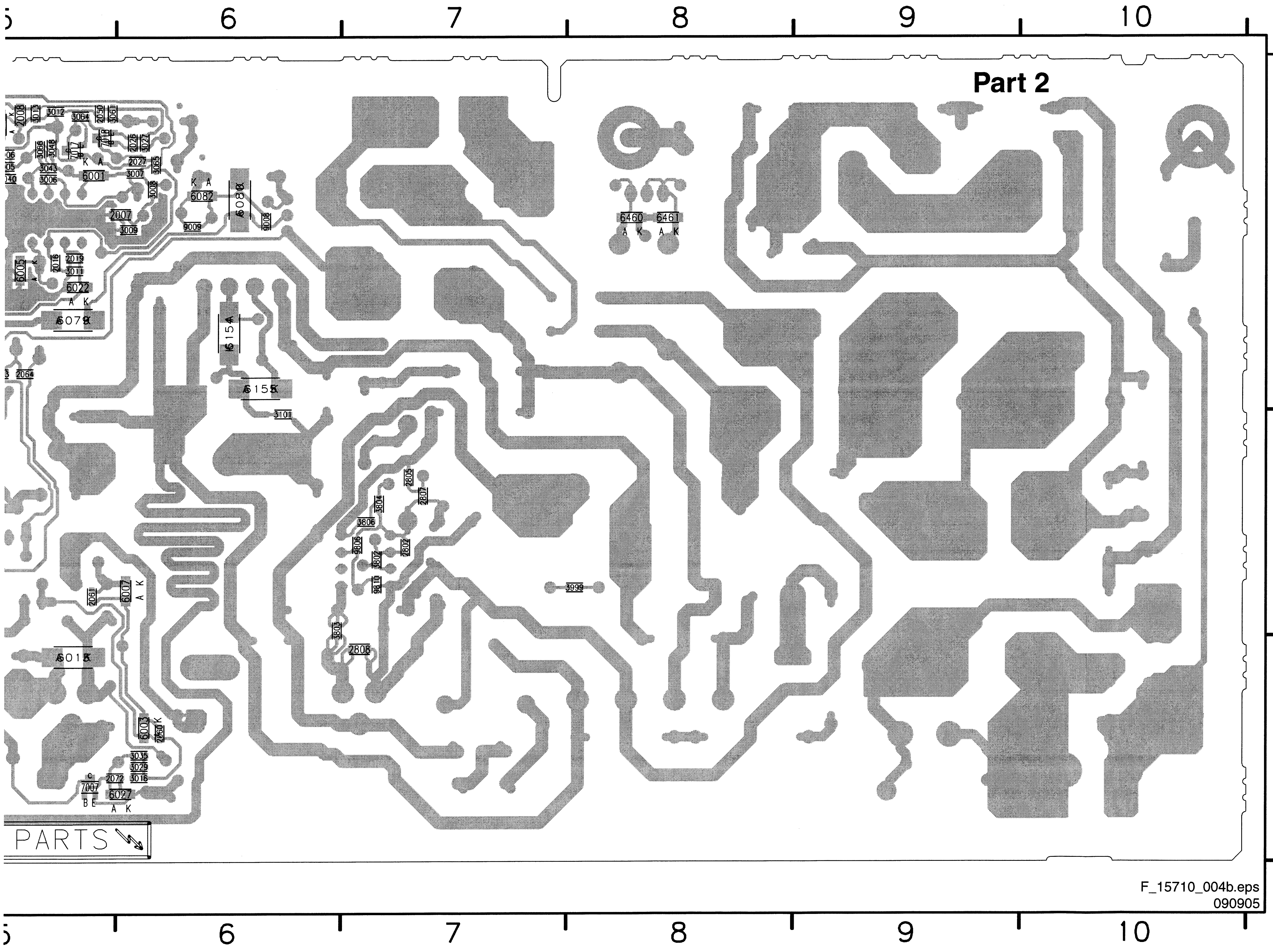


Layout LCD Supply (32") (Part 1 Bottom Side)


1
2
3
4
5
A
B
C
Part 1
2291
2293
3069
2043
2052
2053
2051
2033
9030
2031
2032
2042
2041
2025
3037
3062
3057
3024
6023
3040
2024
9820
7010
3038
3002
2023
3292
2290
3041
2030
3025
3023
3026
3034
3032
2039
3027
3031
7030
3045
3029
3054
2037
6030
3042
3051
3044
7031
6054
3036
3039
3049
3050
2036
3044
3028
3100
6015
6014
7004
3089
3071
2077
3078
7009
3070
6051
3058
2046
3047
3001
3027
3046
3045
2013
2015
6010
6011
2008
3013
3012
3064
2034
6006
2035
3003
2006
3005
2040
3066
3048
3043
3006
6017
2048
3002
3068
3055
6009
6020
3010
9045
2009
3004
6005
2016
2019
3011
6022
3067
6081
6004
6077
6079
2063
2064
6078
2061
6018
3028
3019
3020
7008
2071
6028
2062
6008
6002
2065
6013
7007
ATTENTION : LIVE PARTS

F_15710_004a.eps
090905

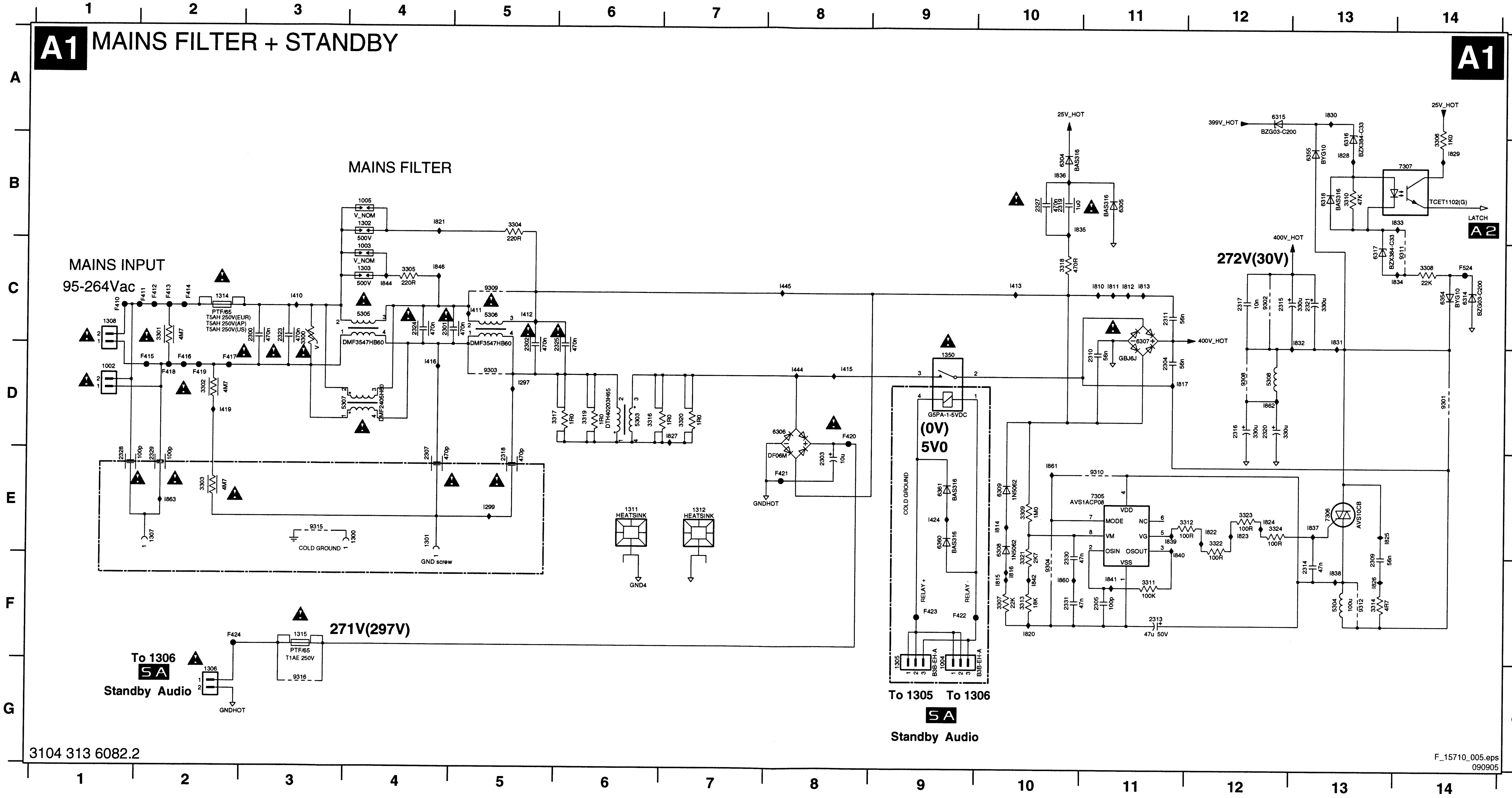
Layout LCD Supply (32") (Part 2 Bottom Side)


Part 2
6
7
8
9
10
A
B
C
2008
3013
3012
3064
2050
3061
3066
3048
7017
7018
2026
3072
2027
3043
3006
6001
3007
3065
3008
6082
6080
9008
9009
2007
3009
6460
6461
6005
2016
2019
3011
6022
6079
6154
2064
6155
3101
2805
2807
3804
3806
9806
3802
2802
9810
3999
2061
6007
3803
2808
6018
6003
2060
3035
3029
3016
2072
7007
6027
PARTS

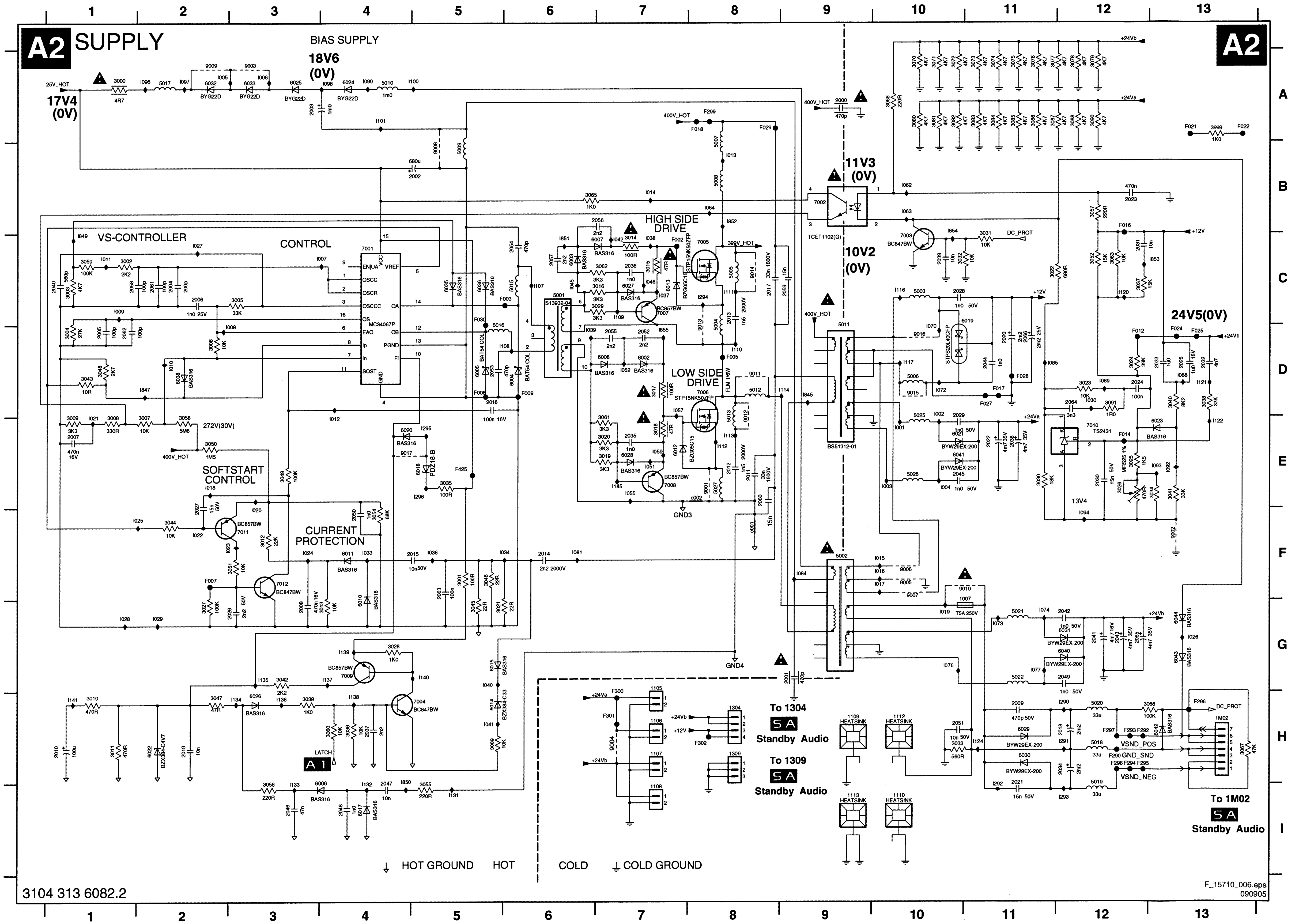
F_15710_004b.eps
090905

LCD Supply (37”): Mains Filter + Standby

1002	D1
1003	C4
1004	G9
1005	B4
1300	E4
1301	E4
1302	B4
1303	C4
1305	G9
1306	G2
1307	E2
1308	C1
1311	E6
1312	E7
1314	C2
1315	F3
1350	D9
2300	C3
2301	C4
2302	D5
2303	E8
2304	D11
2305	F11
2307	E4
2309	F13
2310	D11
2311	C11
2313	F11
2314	F13
2315	C12
2316	D12
2317	C12
2318	E5
2319	B10
2320	D12
2321	C13
2323	C3
2324	C4
2325	D6
2327	B10
2328	E1
2329	E2
2330	F10
2331	F10
3300	C3
3301	C2
3302	D2
3303	E2
3304	B5
3305	C4
3306	B14
3307	F10
3308	C14
3309	E10
3310	B13
3311	F11
3312	E12
3313	F10
3314	F13
3316	D6
3317	D6
3318	C10
3319	D6
3320	D7
3321	F10
3322	E12
3323	E12
3324	E12
5303	D6
5304	F13
5305	C4
5306	C5
5307	D3
5308	D12
6304	B10
6305	B11
6306	D8
6307	C11
6308	E10
6309	E10
6314	C14
6315	A12
6316	B13
6317	C13
6318	B13
6354	C14
6355	B13
6360	E9
6361	E9
7305	E11
7306	E13
7307	B14
9301	D14
9302	C12
9303	D5
9304	F10
9308	D12
9309	C5
9310	E11
9311	C14
9312	F13
9315	E3
9316	G3
F410	C1
F411	C2
F412	C2
F413	C2
F414	C2
F415	D2
F416	D2
F417	D2
F418	D2
F419	D2
F420	D8
F421	E8
F422	F9
F423	F9
F424	F2
F524	C14
I297	D5
I299	E5
I410	C3
I411	C5
I412	C5
I413	C10
I415	D8
I416	D4
I419	D2
I424	E9
I444	D8
I445	C8
I810	C11
I811	C11
I812	C11
I813	C11
I814	E10
I815	F10
I816	F10
I817	D11
I820	F10
I821	B4
I822	E12
I823	E12
I824	E12
I825	E13
I826	F13
I827	D7
I828	B13
I829	B14
I830	A13
I831	C13
I832	C13
I833	B14
I834	C14
I835	B10
I836	B10
I837	E13
I838	F13
I839	E11
I840	E11
I841	F11
I842	F10
I844	C4
I846	C4
I860	F10
I861	E10
I862	D12
I863	E2


A1
MAINS FILTER + STANDBY
MAINS FILTER
MAINS INPUT
95-264Vac
1308
1002
1314
PTF/65
T5AH 250V(EUR)
T5AH 250V(AP)
T5AH 250V(US)
1005
V_NOM
1302
500V
1003
V_NOM
1303
500V
3304
220R
3305
220R
5305
DMF3547HB60
5306
DMF3547HB60
5307
DMF2405H60
DTH402030465
5303
3317
1R0
3319
1R0
3316
1R0
3320
1R0
1311
HEATSINK
1312
HEATSINK
GND4
9315
COLD GROUND
1300
1301
GND screw
1307
6306
DF06M
2303
10u
GNDHOT
1350
G5PA-1-5VDC
(0V)
5V0
COLD GROUND
6361
BAS316
6360
BAS316
RELAY +
RELAY -
F423
F422
1305
B3B-EH-A
1004
B3B-EH-A
To 1305
To 1306
5A
Standby Audio
To 1306
5A
Standby Audio
1306
GNDHOT
F424
1315
PTF/65
T1AE 250V
9316
271V(297V)
25V_HOT
6304
BAS316
6305
BAS316
2327
470n
2319
1u0
3318
470R
6307
GBJ6J
400V_HOT
2311
56n
2310
56n
2304
56n
272V(30V)
2317
10n
9302
2315
330u
2321
330u
5308
9308
2316
330u
2320
330u
399V_HOT
6315
BZG03-C200
6355
BYG10
6316
BZX384-C33
6318
BAS316
3310
47K
3306
1K0
7307
TCET1102(G)
LATCH
A2
6317
BZX384-C33
9311
3308
22K
6354
BYG10
6314
BZG03-C200
9301
9310
7305
AVS1ACP08
VDD
MODE
NC
VM
VG
OSIN
OSOUT
VSS
3309
1M0
6309
1N5062
6308
1N5062
3321
2K7
3307
22K
3313
18K
9304
2330
47n
2331
47n
2305
100p
2313
47u 50V
3311
100K
3312
100R
3322
100R
3323
100R
3324
100R
7306
AVS10CB
2314
47n
5304
100u
9312
2309
56n
3314
4R7
2328
100p
2329
100p
2307
470p
2318
470p
3303
4M7
3301
4M7
3302
4M7
2300
470n
2323
470n
2324
470n
2301
470n
2302
470n
2325
470n
3300
9309
9303
3104 313 6082.2
F_15710_005.eps
090905

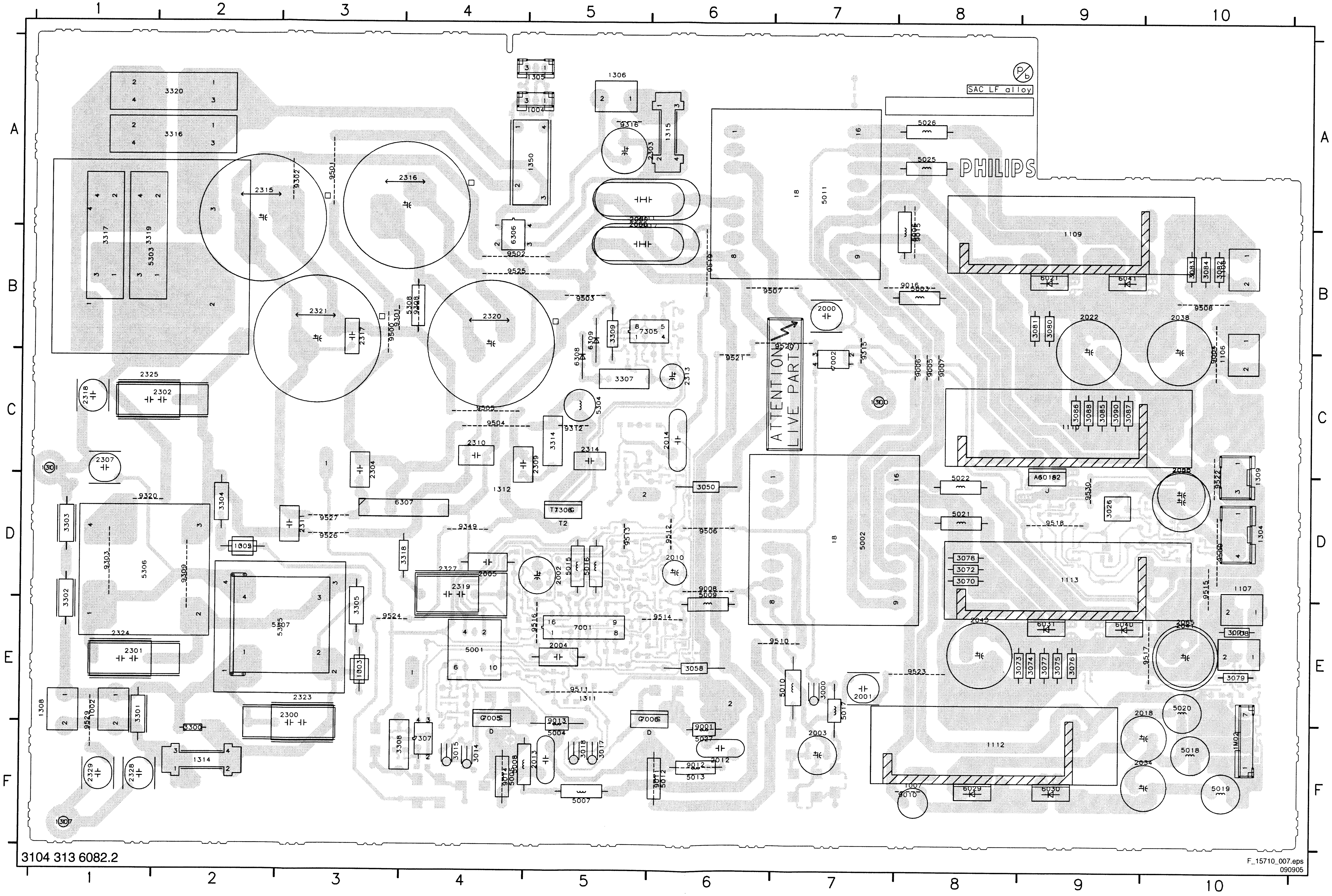
LCD Supply (37"): Supply


A2 SUPPLY
BIAS SUPPLY
18V6
(0V)
25V_HOT
17V4
(0V)
VS-CONTROLLER
CONTROL
MC34067P
HIGH SIDE
DRIVE
LOW SIDE
DRIVE
STP15NK50ZFP
BC857BW
BC847BW
SOFTSTART
CONTROL
CURRENT
PROTECTION
400V_HOT
11V3
(0V)
10V2
(0V)
TCET1102(G)
24V5(0V)
+24Vb
+24Va
+12V
DC_PROT
TS2431
13V4
BSS1312-01
STPS20L40CFP
BYW29EX-200
T5A 250V
To 1304
5A
Standby Audio
To 1309
5A
Standby Audio
To 1M02
5A
Standby Audio
VSND_POS
GND_SND
VSND_NEG
HEATSINK
LATCH
A1
GND3
GND4
HOT GROUND
HOT
COLD
COLD GROUND
3104 313 6082.2
F_15710_006.eps
090905
1
2
3
4
5
6
7
8
9
10
11
12
13
A
B
C
D
E
F
G
H
I

1007	G11
1105	G7
1106	H7
1107	H7
1108	I7
1109	H9
1110	I10
1112	H10
1113	I9
1304	H8
1309	H8
1M02	H13
2000	A9
2001	G9
2002	B5
2003	A3
2004	C2
2005	D1
2006	C2
2007	E1
2008	G3
2009	H11
2010	H1
2011	E8
2012	E8
2013	C8
2014	F6
2015	F5
2016	D5
2017	C8
2018	H12
2019	H2
2020	D11
2021	I11
2022	E11
2023	B12
2024	D12
2025	D13
2026	G3
2027	E2
2028	C10
2029	E10
2030	E12
2031	C12
2032	D13
2033	D13
2034	H12
2035	E7
2036	C7
2037	H4
2038	E11
2039	C10
2040	C1
2041	G12
2042	G12
2043	G12
2044	D11
2045	E10
2046	I3
2047	I4
2048	I4
2049	G12
2050	F4
2051	H10
2052	D7
2053	D5
2054	C6
2055	D7
2056	B7
2057	C6
2058	C1
2059	C9
2060	E8
2061	C2
2062	D1
2063	F5
2064	D12
2065	G12
2066	D11
3000	A1
3001	F5
3002	C1
3003	C1
3004	D1
3005	C3
3006	D2
3007	E2
3008	E1
3009	E1
3010	H1
3011	H1
3012	F3
3013	G4
3014	C7
3015	C7
3016	C7
3017	D7
3018	E7
3019	E7
3020	E7
3021	G5
3022	C11
3023	D12
3024	D12
3025	E12
3026	E12
3027	G2
3028	G4
3029	C7
3030	E11
3031	C11
3032	C10
3033	H10
3034	E13
3035	E5
3036	H4
3037	C12
3038	D13
3039	H3
3040	D13
3041	E13
3042	G3
3043	D1
3044	F2
3045	G5
3046	F5
3047	H2
3048	D1
3049	E3
3050	E2
3051	F3
3052	C12
3054	F4
3055	I5
3056	I3
3057	B12
3058	E2
3059	C1
3060	H4
3061	E7
3062	C7
3063	C12
3065	B6
3066	H13
3067	H13
3068	A10
3070	A10
3071	A10
3072	A10
3073	A11
3074	A11
3075	A11
3076	A11
3077	A11
3078	A12
3079	A12
3080	A10
3081	A10
3082	A10
3083	A11
3084	A11
3085	A11
3086	A11
3087	A11
3088	A12
3089	H5
3090	A12
3091	D12
3999	A13
5001	C6
5002	F9
5003	C10
5004	C8
5005	C8
5006	D10
5007	A8
5008	B8
5009	B5
5010	A4
5011	D9
5012	D8
5013	D8
5015	C6
5016	D5
5017	A2
5018	H12
5019	I12
5020	H12
5021	G11
5022	G11
5025	E10
5026	E10
5027	E8
6002	D7
6003	C6
6004	D6
6005	D5
6006	I4
6007	C7
6008	D7
6010	G4
6011	F4
6012	E7
6013	C7
6014	H5
6015	G5
6017	I4
6018	E5
6019	C10
6020	E4
6021	E10
6022	H2
6023	E13
6024	A4
6025	A3
6026	H3
6027	C7
6028	E7
6029	H11
6030	H11
6031	G12
6032	A2
6033	A3
6035	C5
6036	C5
6038	D2
6040	G12
6041	E10
6042	H13
6043	G13
6044	G13
7001	C4
7002	B9
7003	C10
7004	H5
7005	C8
7006	D8
7007	C7
7008	E7
7009	G4
7010	E12
7011	F3
7012	F3
9001	E8
9002	F13
9003	A3
9004	H7
9005	F10
9006	F10
9007	F10
9008	B5
9009	A2
9010	F11
9011	D8
9012	D8
9013	C8
9014	C8
9015	D10
9016	D10
9017	E4
F002	C7
F003	C6
F005	D8
F007	F2
F008	D5
F009	D6
F012	D12
F014	E12
F016	B12
F017	D11
F018	A8
F021	A13
F022	A13
F024	D13
F025	D13
F027	D11
F028	D11
F029	A8
F030	C5
F290	H12
F292	H12
F293	H12
F294	H12
F295	H12
F296	H13
F297	H12
F298	H12
F299	A8
F300	H7
F301	H7
F302	H8
F425	E5
I001	E10
I002	D10
I003	E10
I004	E10
I005	A2
I006	A3
I007	C4
I008	D3
I009	C1
I010	D2
I011	C1
I012	E4
I013	B8
I014	B7
I015	F10
I016	F10
I017	F10
I018	E2
I019	G10
I020	F3
I021	E1
I022	F2
I023	F2
I024	F3
I025	F2
I026	G13
I027	C2
I028	G1
I029	G2
I030	D12
I033	F4
I034	F6
I036	F5
I037	C7
I038	C7
I039	D6
I040	G5
I041	H5
I042	C7
I045	C6
I046	C7
I051	E7
I052	D7
I055	E7
I057	D7
I059	E7
I062	B10
I063	B10
I064	B8
I070	D10
I072	D10
I073	G11
I074	G11
I076	G10
I077	G11
I081	F6
I084	F9
I085	D11
I088	D13
I089	D12
I092	E13
I093	E13
I094	F12
I096	A2
I097	A2
I098	A4
I099	A4
I100	A5
I101	A4
I107	C6
I108	D6
I109	C7
I110	D8
I111	C8
I112	E8
I113	E8
I114	D9
I116	C10
I117	D10
I120	C12
I121	D13
I122	E13
I124	H11
I131	I5
I132	I4
I133	I3
I134	H3
I135	G3
I136	H3
I137	G4
I138	H4
I139	G4
I140	G5
I141	H1
I145	E7
I290	H12
I291	H12
I292	I11
I293	I12
I294	C8
I295	E5
I296	E5
I845	D9
I847	D2
I849	C1
I850	H4
I851	C6
I852	B8
I853	C13
I854	B10
I855	D7
c001	F8
c002	E8

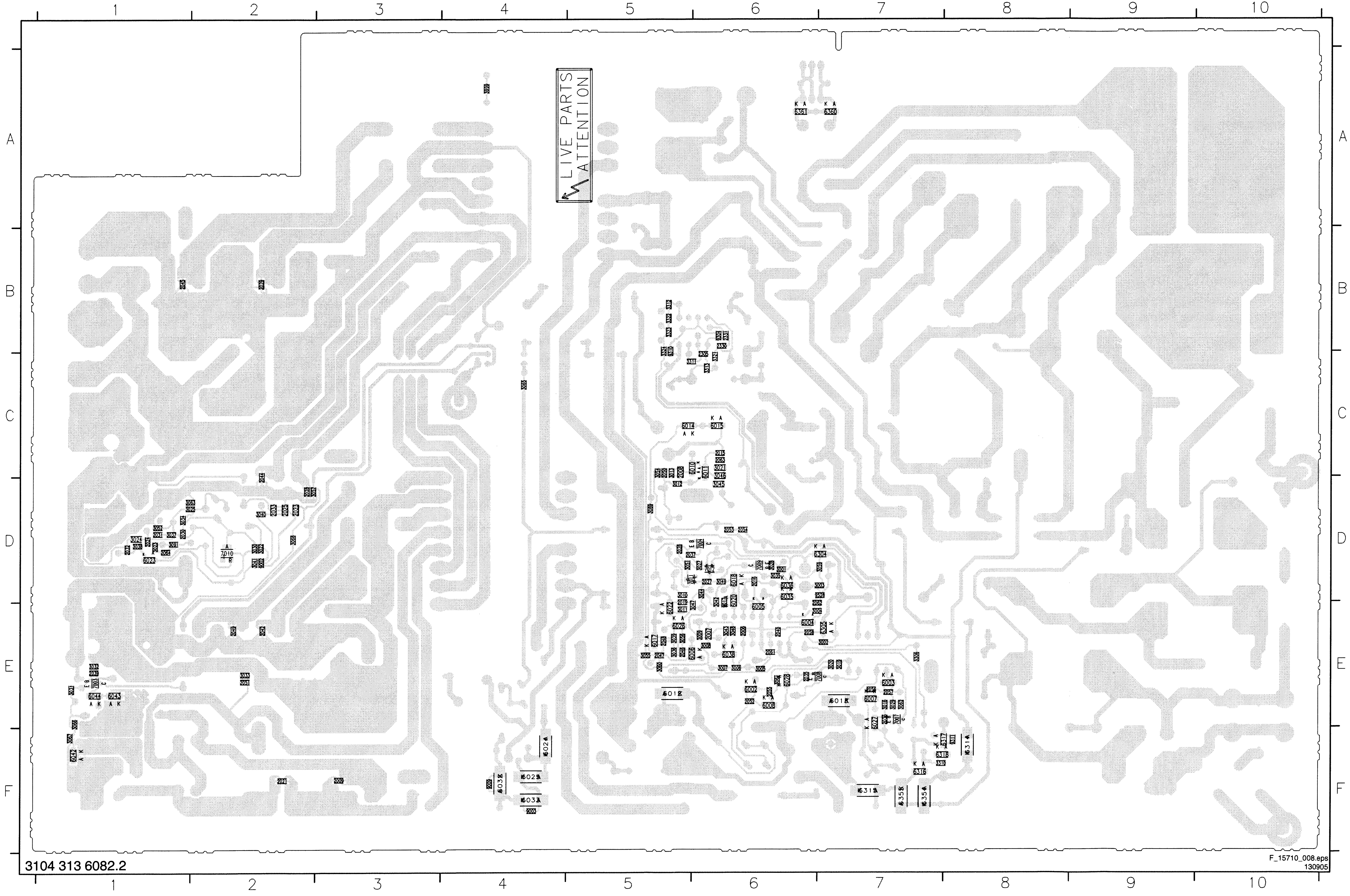
Layout LCD Supply (37") (Top Side)

1002	E1
1003	E3
1004	A5
1005	D2
1007	F8
1105	B10
1106	B10
1107	D10
1108	E10
1109	B8
1110	C8
1112	F8
1113	E8
1300	C7
1301	C1
1302	D2
1303	E3
1304	D10
1305	A5
1306	A5
1307	F1
1308	E1
1309	C10
1311	E4
1312	D3
1314	F2
1315	A6
1350	A5
1M02	F10
2000	B7
2001	E7
2002	D5
2003	F7
2004	E5
2005	D4
2010	D6
2011	A5
2012	F6
2013	F5
2014	C6
2017	A5
2018	E10
2020	D10
2022	B9
2034	F10
2038	B10
2041	E10
2043	E8
2059	A5
2060	A5
2065	E10
2066	C10
2300	E3
2301	E2
2302	C2
2303	A5
2304	C3
2307	C1
2309	C4
2310	C4
2311	D2
2313	C6
2314	C5
2315	A2
2316	A3
2317	B3
2318	C1
2319	D4
2320	B5
2321	B3
2323	E3
2324	E2
2325	C2
2327	E4
2328	F1
2329	F1
3000	E7
3014	F4
3015	F4
3017	F5
3018	F5
3026	D9
3050	D6
3058	E6
3070	D8
3071	E10
3072	D8
3073	E8
3074	E9
3075	E9
3076	E9
3077	E9
3078	D8
3079	E10
3080	B9
3081	B9
3082	B10
3083	B10
3084	B10
3085	C9
3086	C9
3087	C9
3088	C9
3090	C9
3300	E2
3301	E2
3302	E1
3303	D1
3304	D2
3305	E3
3307	C5
3308	F3
3309	B5
3314	C5
3316	A1
3317	B1
3318	D4
3319	B2
3320	A1
5001	E4
5002	D8
5003	B8
5004	E5
5005	F4
5006	B7
5007	F5
5008	F4
5009	E6
5010	E7
5011	A7
5012	F5
5013	F6
5015	D5
5016	D5
5017	E7
5018	F10
5019	F10
5020	E10
5021	D8
5022	C8
5025	A8
5026	A8
5027	E6
5303	A1
5304	C5
5305	E2
5306	D1
5307	D3
5308	B4
6019	D9
6021	B9
6029	F8
6030	F9
6031	E9
6040	E9
6041	B9
6306	B4
6307	D3
6308	B5
6309	B5
7001	E5
7002	B7
7005	F4
7006	F5
7305	B5
7306	D5
7307	F4
9001	F6
9004	C10
9005	C8
9006	C8
9007	C8
9008	D6
9010	F7
9011	F6
9012	F6
9013	F5
9014	F4
9015	B8
9016	B8
9301	B4
9302	A3
9303	D1
9308	B4
9309	D2
9312	C5
9315	B7
9316	A5
9320	D2
9349	D4
9500	B3
9501	A3
9502	B5
9503	B5
9504	C4
9505	C4
9506	D6
9507	B6
9508	B10
9509	D10
9510	E7
9511	E5
9512	D6
9513	D5
9514	E6
9515	D10
9516	E5
9517	E10
9518	D9
9519	B6
9520	B6
9521	B6
9522	C10
9523	E8
9524	E3
9525	B4
9526	D3
9527	D3
9529	F1
9530	D9

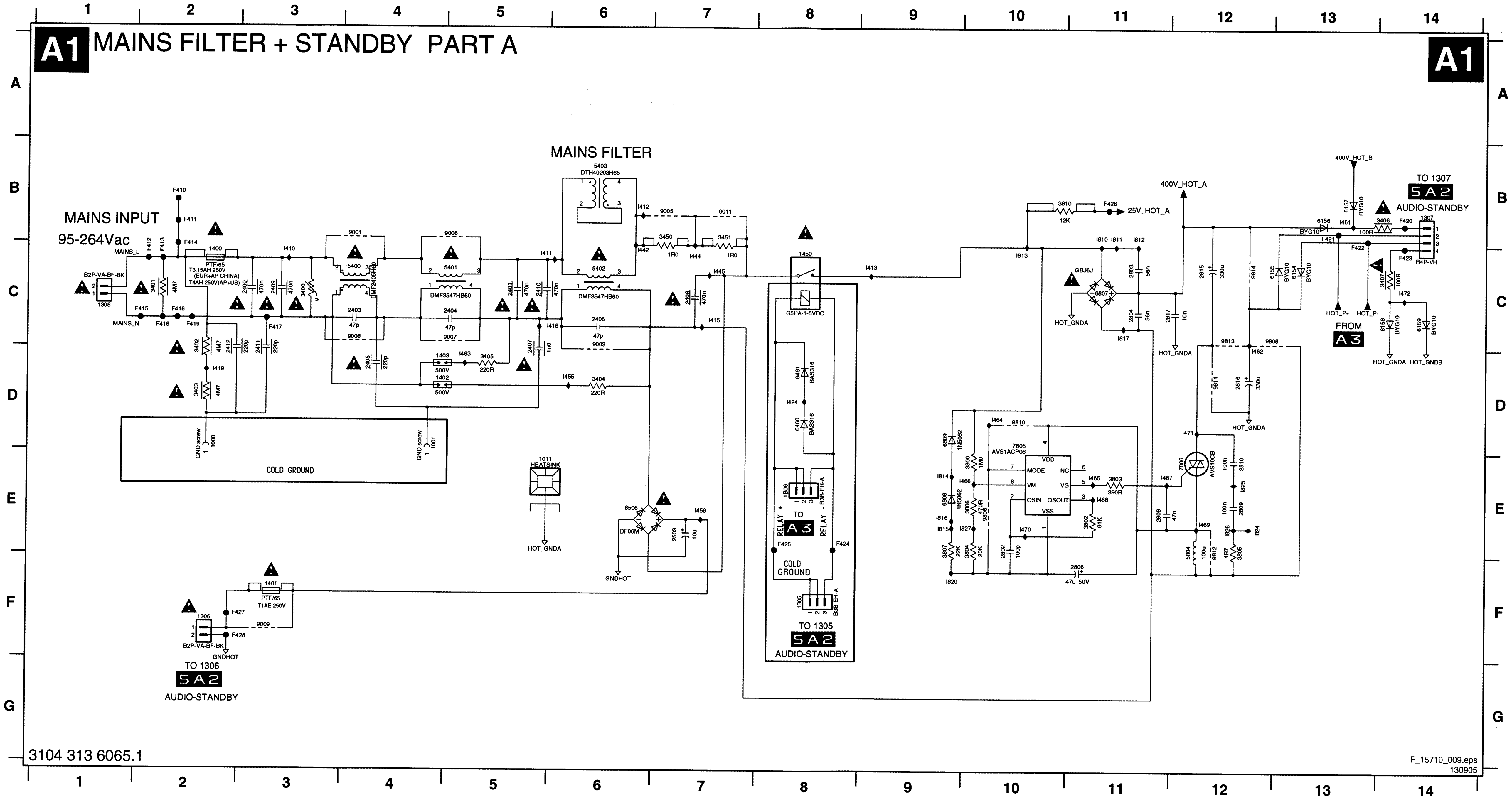

1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
SAC LF alloy
PHILIPS
ATTENTION
LIVE PART
3320
3316
3317
3319
5303
2315
2316
2321
2320
2317
1305
1004
1350
1306
1315
6306
5011
1109
1110
2325
2302
2318
2307
1301
3303
3302
5306
2324
2301
1308
1002
3301
1314
2329
2328
1307
5307
2323
2300
6307
1312
7306
5002
1113
1112
5001
7001
2004
2002
2010
3050
3058
2000
7002
7305
3307
3309
2022
2038
1106
1309
1304
1107
3078
3072
3070
6031
6040
6029
6030
5020
5018
5019
2018
2034
1M02
5022
5021
5026
5025
3026
1300
1003
1303
1005
3000
2001
5010
5017
2003
5012
5013
5007
5004
3308
7307
1007
3104 313 6082.2
F_15710_007.eps
090905

Layout LCD Supply (37”) (Bottom Side)

2006	E6
2007	E6
2008	C5
2009	F3
2015	C6
2016	D6
2019	E5
2021	F2
2023	D2
2024	D1
2025	D2
2026	D5
2027	D6
2028	D2
2029	B2
2030	D1
2031	D1
2032	D1
2033	D2
2035	E6
2036	E7
2037	D5
2039	E1
2040	E6
2042	E2
2044	D2
2045	B1
2046	E5
2047	E5
2048	E5
2049	E2
2050	C5
2051	E2
2052	E6
2053	D6
2054	D6
2055	E6
2056	E7
2057	E7
2058	E6
2061	E6
2062	E6
2063	C6
2064	D1
2305	C6
2330	B6
2331	B6
3001	D6
3002	E7
3003	D7
3004	E6
3005	E6
3006	E6
3007	E6
3008	E6
3009	E6
3010	D5
3011	E5
3012	D5
3013	C5
3016	E7
3019	E7
3020	E7
3021	C6
3022	D2
3023	D1
3024	D1
3025	D1
3027	D6
3028	D6
3029	E7
3030	D2
3031	E1
3032	E1
3033	E2
3034	D1
3035	D6
3036	E5
3037	D1
3038	D1
3039	E5
3040	D2
3041	D2
3042	E6
3043	E6
3044	D6
3045	D6
3046	C6
3047	E6
3048	E6
3049	D6
3051	D5
3052	D1
3054	C5
3055	E5
3056	E5
3057	D2
3059	D7
3060	E5
3061	E6
3062	E7
3063	D1
3065	C4
3066	E1
3067	F1
3068	D2
3089	D5
3091	D1
3306	E7
3310	F7
3311	C5
3312	B5
3313	C6
3321	C6
3322	B5
3323	B5
3324	B5
3999	A4
6002	E6
6003	E7
6004	E6
6005	E6
6006	E5
6007	E7
6008	E6
6010	C6
6011	C6
6012	E5
6013	E7
6014	C5
6015	C6
6017	E5
6018	D6
6020	D6
6022	E5
6023	D1
6024	F4
6025	F4
6026	E5
6027	E7
6028	E6
6032	F4
6033	F4
6035	E6
6036	D6
6038	E6
6042	F1
6043	E1
6044	E1
6304	D7
6305	E7
6314	F8
6315	F7
6316	F7
6317	F8
6318	F7
6354	F7
6355	F7
6360	A7
6361	A6
7003	E1
7004	D6
7007	E7
7008	E7
7009	D6
7010	D2
7011	D5
7012	D6
9002	D2
9003	F4
9009	F4
9017	E6
9304	B6
9310	B5
9311	F8
9528	D7

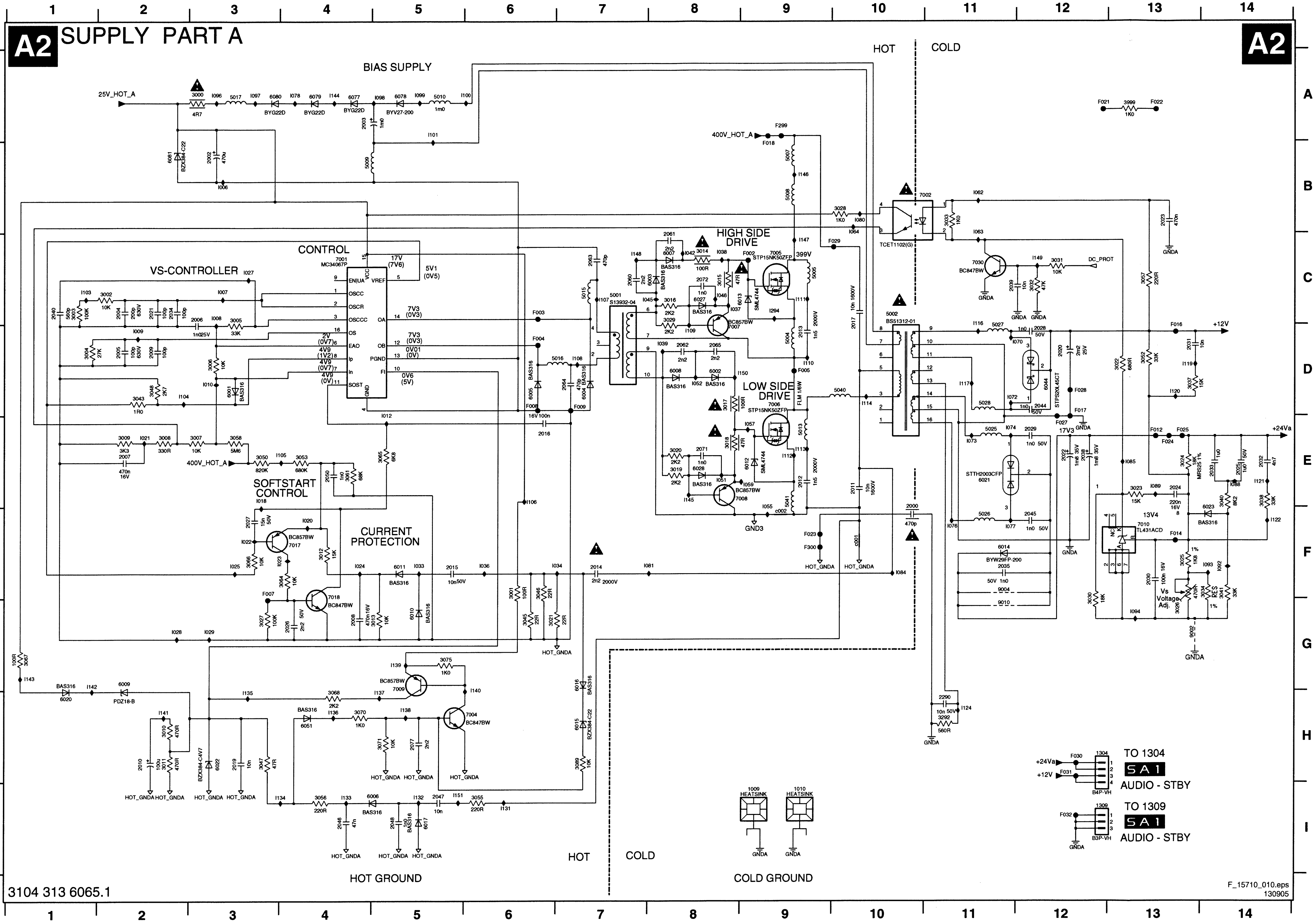


LCD Supply (42” - v2): MF + Standby Part A


A1
MAINS FILTER + STANDBY PART A
MAINS FILTER
MAINS INPUT
95-264Vac
MAINS_L
MAINS_N
B2P-VA-BF-BK
1308
1400
PTF/65
T3.15AH 250V
(EUR+AP CHINA)
T4AH 250V(AP-US)
5400
5401
5402
5403
DTH40203H65
DMF3547HB60
DMF2405HB
COLD GROUND
GND screw
1000
1001
1011
HEATSINK
HOT_GNDA
1401
PTF/65
T1AE 250V
1306
GNDHOT
TO 1306
SA2
AUDIO-STANDBY
1450
G5PA-1-5VDC
BAS316
RELAY +
RELAY -
TO
A3
B3B-EH-A
COLD GROUND
1305
TO 1305
SA2
AUDIO-STANDBY
DF06M
6506
3810
12K
25V_HOT_A
400V_HOT_A
400V_HOT_B
GBJ6J
6807
7805
AVS1ACP08
VDD
MODE
VM
OSIN
NC
VG
OSOUT
VSS
7806
AVS10CB
TO 1307
SA2
AUDIO-STANDBY
1307
B4P-VH
HOT_P+
HOT_P-
FROM
A3
BYG10
HOT_GNDA HOT_GNDB
3104 313 6065.1
F_15710_009.eps
130905

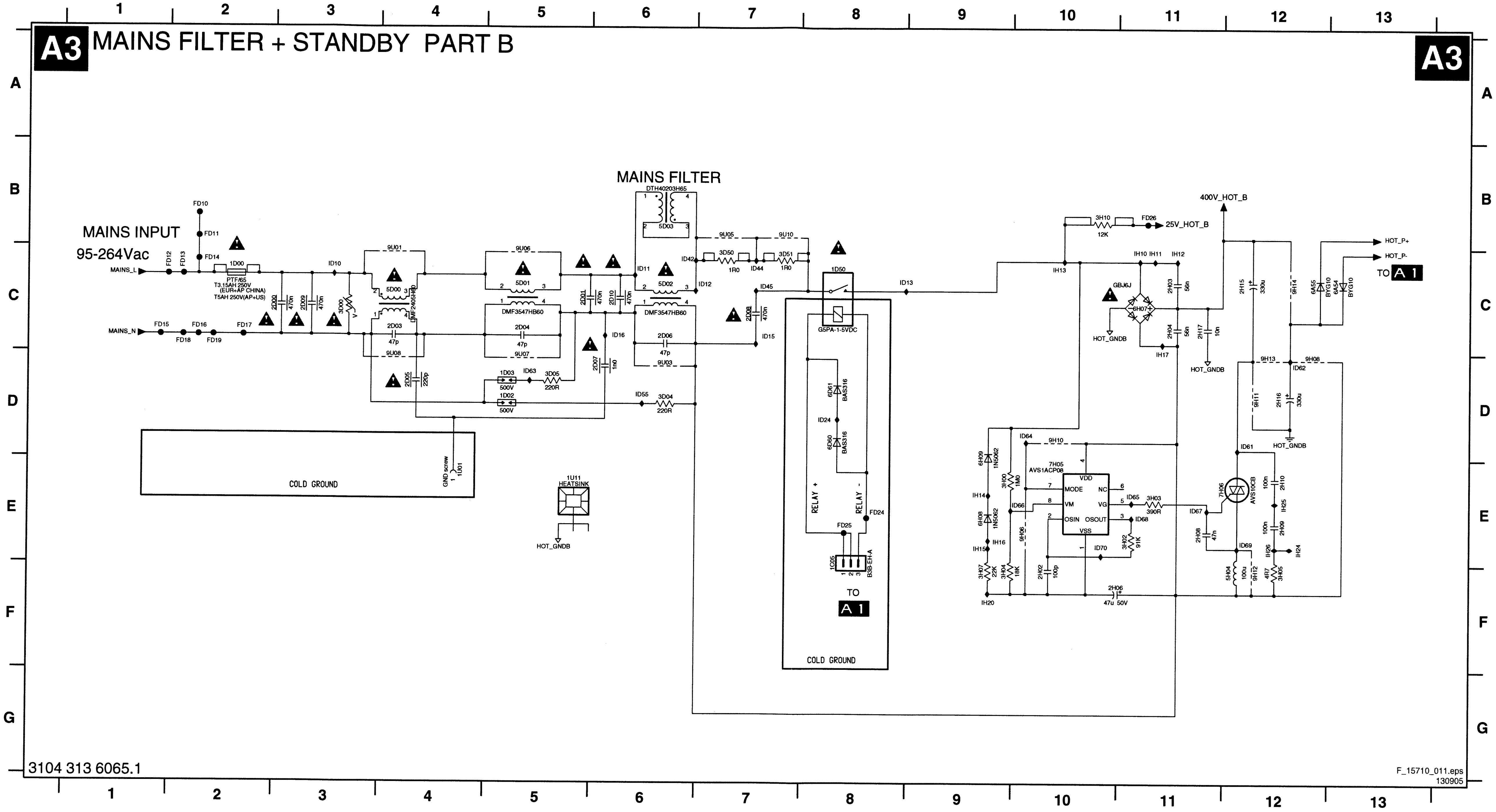
1000	D2
1001	D4
1011	E5
1305	F8
1306	F2
1307	B14
1308	C1
1400	C2
1401	F3
1402	D4
1403	D4
1450	C8
1B06	E8
2400	C3
2401	C5
2403	C4
2404	C5
2405	D4
2406	C6
2407	C5
2408	C7
2409	C3
2410	C5
2411	D3
2412	D2
2503	E7
2802	E10
2803	C11
2804	C11
2806	F11
2808	E11
2809	E12
2810	E12
2815	C12
2816	D12
2817	C11
3400	C3
3401	C2
3402	D2
3403	D2
3404	D6
3405	D5
3406	B14
3407	C14
3450	B7
3451	B7
3800	E10
3802	E11
3803	E11
3804	E10
3805	E12
3806	E10
3807	E9
3810	B10
5400	C4
5401	C5
5402	C6
5403	B6
5804	E12
6154	C13
6155	C12
6156	B13
6157	B13
6158	C14
6159	C14
6460	D8
6461	D8
6506	E6
6807	C11
6808	E9
6809	D9
7805	D10
7806	E12
9001	B4
9003	C6
9005	B7
9006	B5
9007	C5
9008	C4
9009	F3
9011	B7
9806	E10
9808	C12
9810	D10
9811	D12
9812	E12
9813	C12
9814	C12
F410	B2
F411	B2
F412	C2
F413	C2
F414	C2
F415	C2
F416	C2
F417	C3
F418	C2
F419	C2
F420	B14
F421	B13
F422	C13
F423	C14
F424	E8
F425	E8
F426	B11
F427	F3
F428	F3
I410	C3
I411	C5
I412	B6
I413	C9
I415	C7
I416	C6
I419	D2
I424	D8
I442	C6
I444	C7
I445	C7
I455	D6
I456	E7
I461	B13
I462	C12
I463	D5
I464	D10
I465	E11
I466	E10
I467	E11
I468	E11
I469	E12
I470	E10
I471	D12
I472	C14
I810	B11
I811	B11
I812	B11
I813	C10
I814	E9
I815	E9
I816	E9
I817	C11
I820	F9
I824	E12
I825	E12
I826	E12
I827	E10

LCD Supply (42" - v2): Supply Part A


A2
SUPPLY PART A
BIAS SUPPLY
25V_HOT_A
HOT
COLD
400V_HOT_A
CONTROL
7001
MC34067P
VS-CONTROLLER
HIGH SIDE DRIVE
7005
STP15NK50ZFP
399V
LOW SIDE DRIVE
7006
STP15NK50ZFP
5001
S13932-04
5002
BS51312-01
7002
TCET1102(G)
DC_PROT
+12V
+24Va
17V3
13V4
7010
TL431ACD
Vs Voltage Adj.
SOFTSTART CONTROL
CURRENT PROTECTION
GND3
HOT_GNDA
GNDA
1009 HEATSINK
1010 HEATSINK
TO 1304
SA1
AUDIO - STBY
TO 1309
SA1
AUDIO - STBY
HOT GROUND
COLD GROUND
3104 313 6065.1
F_15710_010.eps
130905

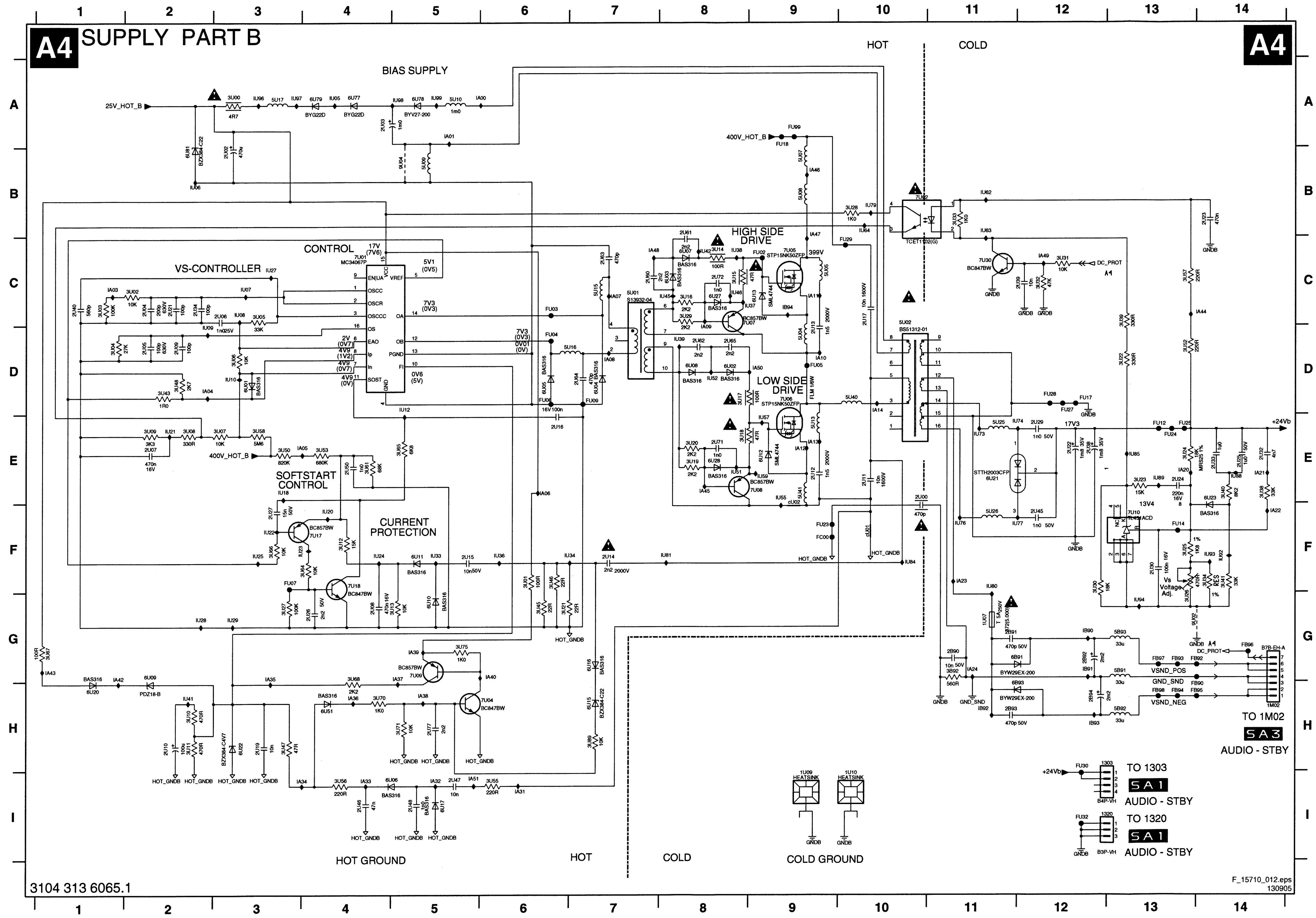
1009	I9
1010	I9
1304	H12
1309	I12
2000	F10
2002	B3
2003	A4
2004	C2
2005	D2
2006	C3
2007	E2
2008	G4
2009	D2
2010	H2
2011	E10
2012	E9
2013	D9
2014	F7
2015	F5
2016	E6
2017	C10
2019	H3
2020	D12
2021	C2
2022	E12
2023	B13
2024	E13
2025	E14
2026	G4
2027	F3
2028	D12
2029	E12
2030	F13
2031	D13
2032	E14
2033	E14
2034	C2
2035	F11
2038	E12
2039	C11
2040	C1
2044	D12
2045	F12
2046	I4
2047	I5
2048	I5
2050	E4
2060	C7
2061	C8
2062	D8
2063	C7
2064	D7
2065	D8
2071	E8
2072	C8
2077	H5
2290	H11
3000	A3
3001	F6
3002	C2
3003	C1
3004	D1
3005	C3
3006	D3
3007	E3
3008	E2
3009	E2
3010	H2
3011	H2
3012	F4
3013	G5
3014	C8
3015	C8
3016	C8
3017	D8
3018	E8
3019	E8
3020	E8
3021	G6
3022	D13
3023	E13
3024	E13
3025	F13
3026	G13
3027	G3
3028	B10
3029	C8
3030	G12
3031	C12
3032	C12
3033	B11
3034	F14
3037	D13
3038	E14
3040	E14
3041	F14
3043	D2
3045	G6
3046	F6
3047	H3
3048	D2
3050	E3
3052	D13
3053	E4
3055	I6
3056	I4
3057	C13
3058	E3
3061	E4
3064	F4
3065	E5
3066	F3
3067	G1
3068	H4
3070	H4
3071	H5
3075	G5
3089	H7
3292	H11
3999	A13
5001	C7
5002	C10
5004	D9
5005	C9
5007	B9
5008	B9
5009	B4
5010	A5
5013	E9
5015	C7
5016	D7
5017	A3
5025	E11
5026	F11
5027	D11
5028	D11
5040	D10
5041	E9
6001	D3
6002	D8
6003	C8
6004	D7
6005	D6
6006	I5
6007	C8
6008	D8
6009	G2
6010	G5
6011	F5
6012	E9
6013	C9
6014	F11
6015	H7
6016	G7
6017	I5
6020	H1
6021	E11
6022	H3
6023	F14
6027	C8
6028	E8
6044	D12
6051	H4
6077	A4
6078	A5
6079	A4
6080	A3
6081	B2
7001	C3
7002	B10
7004	H6
7005	C9
7006	D9
7007	D8
7008	E8
7009	G5
7010	F13
7017	F4
7018	F4
7030	C11
9002	G13
9004	F11
9010	G11
F002	C9
F003	C6
F004	D6
F005	D9
F007	F3
F008	D6
F009	D7
F012	E13
F014	F13
F016	D13
F017	D12
F018	B9
F021	A12
F022	A13
F023	F9
F024	E13
F025	E13
F027	E12
F028	D12
F029	C10
F030	H12
F031	H12
F032	I12
F299	A9
F300	F9
I006	B3
I007	C3
I008	C3
I009	D2
I010	D3
I012	D5
I018	E3
I020	F4
I021	E2
I022	F3
I023	F3
I024	F4
I025	F3
I027	C3
I028	G2
I029	G3
I033	F5
I034	F7
I036	F6
I037	C8
I038	C8
I039	D8
I042	C8
I045	C7
I046	C8
I051	E8
I052	D8
I055	E9
I057	E9
I059	E9
I062	B11
I063	B11
I064	B10
I070	D12
I072	D11
I073	E11
I074	E11
I076	F11
I077	F11
I078	A4
I080	B10
I081	F8
I084	F10
I085	E13
I088	E14
I089	E13
I092	F14
I093	F14
I094	G13
I096	A3
I097	A3
I098	A5
I099	A5
I100	A6
I101	A5
I103	C1
I104	D2
I105	E4
I106	E6
I107	C7
I108	D7
I109	D8
I110	D9
I111	C9
I112	E9
I113	E9
I114	D10
I116	C11
I117	D11
I119	D13
I120	D13
I121	E14
I122	F14
I124	H11
I131	I6
I132	I5
I133	I4
I134	I4
I135	H3
I136	H4
I137	H5
I138	H5
I139	G5
I140	G6
I141	H2
I142	G1
I143	G1
I144	A4
I145	E8
I146	B9
I147	C9
I148	C7
I149	C12
I150	D9
I151	I5
I294	C9
c001	F10
c002	F9

LCD Supply (42” - v2): MF + Standby Part B


A3
MAINS FILTER + STANDBY PART B
A3
MAINS INPUT
95-264Vac
MAINS_L
MAINS_N
FD10
FD11
FD12
FD13
FD14
FD15
FD16
FD17
FD18
FD19
1D00
PTF/65
T3.15AH 250V
(EUR+AP CHINA)
T5AH 250V(AP+US)
ID10
2D00
470n
2D09
470n
3D00
V
9U01
5D00
DMF2405H60
2D03
47p
9U08
2D05
220p
9U06
5D01
DMF3547HB60
2D04
47p
9U07
1D03
500V
ID63
3D05
220R
1D02
500V
2D01
470n
2D10
470n
2D07
1n0
ID16
MAINS FILTER
DTH40203H65
5D03
ID11
5D02
DMF3547HB60
2D06
47p
9U03
ID55
3D04
220R
ID42
ID12
9U05
9U10
3D50
1R0
ID44
3D51
1R0
ID45
2D08
470n
ID15
1D50
G5PA-1-5VDC
ID13
6D61
BAS316
ID24
6D60
BAS316
RELAY +
RELAY -
FD24
FD25
1C05
B3B-EH-A
TO
A 1
COLD GROUND
GND screw
1U01
COLD GROUND
1U11
HEATSINK
HOT_GNDB
3H10
12K
FD26
25V_HOT_B
400V_HOT_B
IH13
IH10 IH11
IH12
GBJ6J
6H07
2H03
56n
2H04
56n
2H17
10n
IH17
HOT_GNDB
HOT_GNDB
2H15
330u
9H14
6A55
BYG10
6A54
BYG10
HOT_P+
HOT_P-
TO A 1
9H13
9H08
ID62
9H11
2H16
330u
HOT_GNDB
ID64
9H10
6H09
1N5062
3H00
1M0
7H05
AVS1ACP08
VDD
MODE
NC
VM
VG
OSIN
OSOUT
VSS
IH14
ID66
6H08
1N5062
IH16
IH15
9H06
ID65
3H03
390R
ID68
3H02
91K
ID70
2H02
100p
3H07
22K
3H04
18K
IH20
2H06
47u 50V
ID61
7H06
AVS10CB
2H10
100n
IH25
2H09
100n
ID67
2H08
47n
ID69
IH26
IH24
5H04
100u
9H12
4R7
3H05
3104 313 6065.1
F_15710_011.eps
130905

1C05	E8
1D00	C2
1D02	D5
1D03	D5
1D50	C8
1U01	E4
1U11	E5
2D00	C3
2D01	C5
2D03	C4
2D04	C5
2D05	D4
2D06	C6
2D07	D6
2D08	C7
2D09	C3
2D10	C6
2H02	F10
2H03	C11
2H04	C11
2H06	F10
2H08	E11
2H09	E12
2H10	E12
2H15	C12
2H16	D12
2H17	C11
3D00	C3
3D04	D6
3D05	D5
3D50	C7
3D51	C7
3H00	E9
3H02	E11
3H03	E11
3H04	F9
3H05	F12
3H07	F9
3H10	B10
5D00	C4
5D01	C5
5D02	C6
5D03	B6
5H04	F12
6A54	C13
6A55	C12
6D60	D8
6D61	D8
6H07	C11
6H08	E9
6H09	D9
7H05	E10
7H06	E12
9H06	E10
9H08	D12
9H10	D10
9H11	D12
9H12	F12
9H13	D12
9H14	C12
9U01	C4
9U03	D6
9U05	B7
9U06	C5
9U07	D5
9U08	D4
9U10	B7
FD10	B2
FD11	B2
FD12	C1
FD13	C2
FD14	C2
FD15	C1
FD16	C2
FD17	C2
FD18	C2
FD19	C2
FD24	E8
FD25	E8
FD26	B11
ID10	C3
ID11	C6
ID12	C7
ID13	C8
ID15	C7
ID16	C6
ID24	D8
ID42	C7
ID44	C7
ID45	C7
ID55	D6
ID61	D12
ID62	D12
ID63	D5
ID64	D10
ID65	E11
ID66	E10
ID67	E11
ID68	E11
ID69	E12
ID70	E10
IH10	C11
IH11	C11
IH12	C11
IH13	C10
IH14	E9
IH15	E9
IH16	E9
IH17	C11
IH20	F9
IH24	E12
IH25	E12
IH26	E12

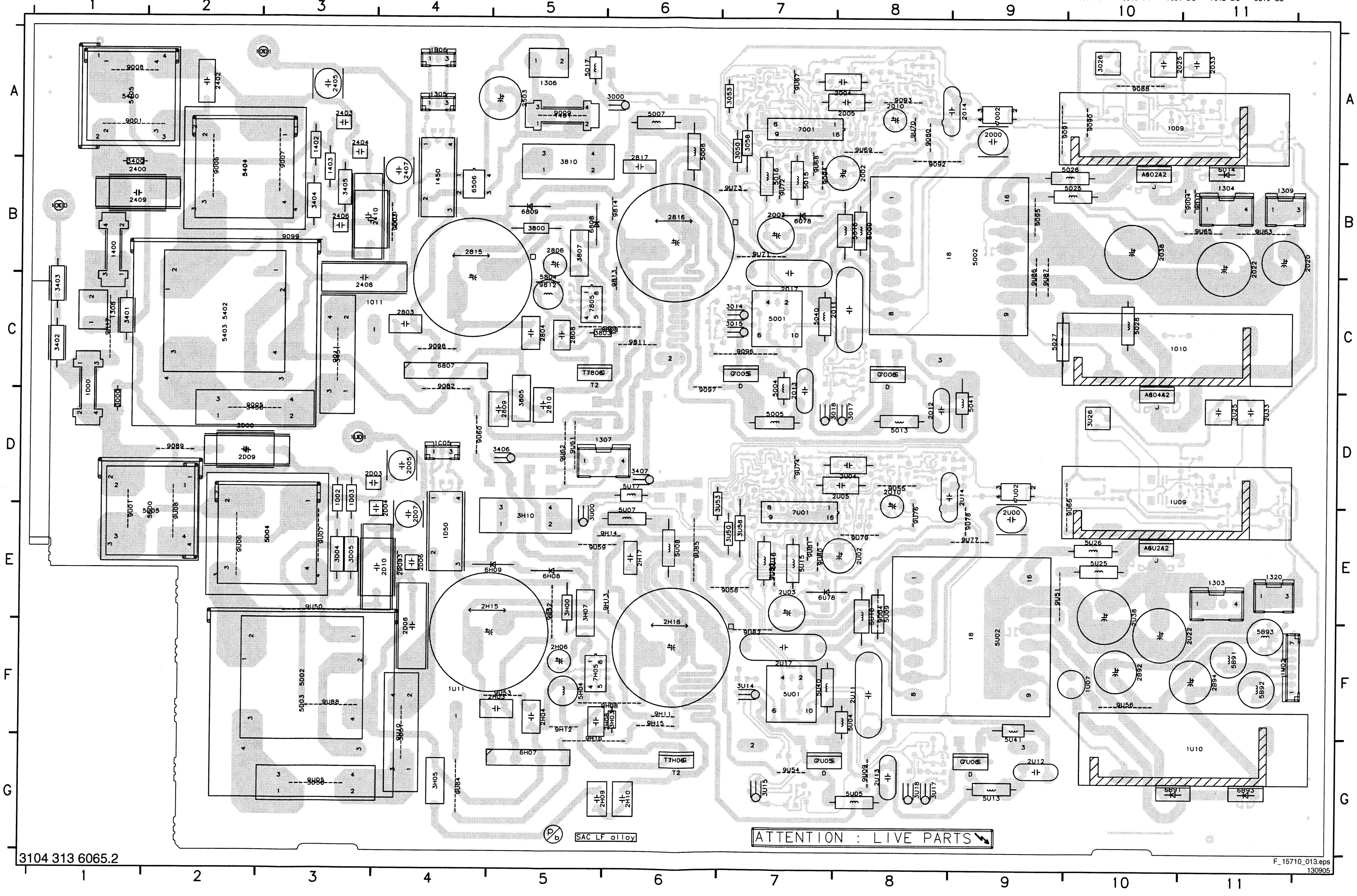
LCD Supply (42” - v2): Supply Part B


A4
SUPPLY PART B
BIAS SUPPLY
HOT
COLD
25V_HOT_B
400V_HOT_B
CONTROL
VS-CONTROLLER
MC34067P
HIGH SIDE DRIVE
LOW SIDE DRIVE
STP15NK50ZFP
BS51312-01
S13932-04
TCET1102(G)
SOFTSTART CONTROL
CURRENT PROTECTION
BC857BW
BC847BW
DC_PROT
+24Vb
17V3
13V4
Vs Voltage Adj.
VSND_POS
GND_SND
VSND_NEG
TO 1M02
SA3
AUDIO - STBY
TO 1303
SA1
AUDIO - STBY
TO 1320
SA1
AUDIO - STBY
HEATSINK
HOT GROUND
COLD GROUND
HOT_GNDB
GNDB
3104 313 6065.1
F_15710_012.eps
130905
1 2 3 4 5 6 7 8 9 10 11 12 13 14
A B C D E F G H I

1303	H13
1320	I13
1M02	H14
1U07	G11
1U09	I9
1U10	I10
2B90	G11
2B91	G11
2B92	G12
2B93	H11
2B94	H12
2U00	E10
2U02	B3
2U03	A4
2U04	C2
2U05	D2
2U06	C3
2U07	E2
2U08	G4
2U09	D2
2U10	H2
2U11	E10
2U12	E9
2U13	D9
2U14	F7
2U15	F5
2U16	E6
2U17	C10
2U19	H3
2U21	C2
2U22	E12
2U23	B14
2U24	E13
2U25	E14
2U26	G4
2U27	F3
2U29	E12
2U30	F13
2U32	E14
2U33	E14
2U34	C2
2U38	E12
2U39	C12
2U40	C1
2U45	F12
2U46	I4
2U47	I5
2U48	I5
2U50	E4
2U60	C7
2U61	B8
2U62	D8
2U63	C7
2U64	D7
2U65	D8
2U71	E8
2U72	C8
2U77	H5
3B92	G11
3U00	A3
3U01	F6
3U02	C2
3U03	C1
3U04	D1
3U05	C3
3U06	D3
3U07	E3
3U08	E2
3U09	E2
3U10	H2
3U11	H2
3U12	F4
3U13	G5
3U14	C8
3U15	C8
3U16	C8
3U17	D8
3U18	E8
3U19	E8
3U20	E8
3U21	G6
3U22	D13
3U23	E13
3U24	E13
3U25	F13
3U26	G13
3U27	G3
3U28	B10
3U29	C8
3U30	F12
3U31	C12
3U32	C12
3U33	B11
3U34	F14
3U38	E14
3U39	C13
3U40	E14
3U41	F14
3U43	D2
3U45	G6
3U46	F6
3U47	H3
3U48	D2
3U50	E3
3U52	D13
3U53	E4
3U55	I6
3U56	I4
3U57	C13
3U58	E3
3U61	E4
3U64	F4
3U65	E5
3U66	F3
3U67	G1
3U68	G4
3U70	H4
3U71	H5
3U75	G5
3U89	H7
5B91	G13
5B92	H13
5B93	G13
5U01	C7
5U02	C10
5U04	D9
5U05	C9
5U07	B9
5U08	B9
5U09	B5
5U10	A5
5U13	E9
5U15	C7
5U16	D7
5U17	A3
5U25	E11
5U26	F11
5U40	D10
5U41	E9
6B91	G12
6B93	H12
6U01	D3
6U02	D8
6U03	C8
6U04	D7
6U05	D6
6U06	I5
6U07	C8
6U08	D8
6U09	G2
6U10	G5
6U11	F5
6U12	E9
6U13	C9
6U15	H7
6U16	G7
6U17	I5
6U20	H1
6U21	E11
6U22	H3
6U23	E14
6U27	C8
6U28	E8
6U51	H4
6U77	A4
6U78	A5
6U79	A4
6U81	B2
7U01	C3
7U02	B10
7U04	H6
7U05	C9
7U06	D9
7U07	C8
7U08	E9
7U09	G5
7U10	F13
7U17	F4
7U18	F4
7U30	C11
9U02	G13
9U04	B5
FB90	H14
FB92	G14
FB93	G13
FB94	H13
FB95	H14
FB96	G14
FB97	G13
FB98	H13
FC00	F9
FU02	C9
FU03	C6
FU04	D6
FU05	D9
FU07	F3
FU08	D6
FU09	D7
FU12	E13
FU14	F13
FU17	D12
FU18	A9
FU23	F9
FU24	E13
FU25	E13
FU27	D12
FU28	D12
FU29	C10
FU30	H12
FU32	I12
FU99	A9
IA00	A6
IA01	A5
IA03	C1
IA04	D2
IA05	E4
IA06	E6
IA07	C7
IA08	D7
IA09	D8
IA10	D9
IA11	C9
IA12	E9
IA13	E9
IA14	D10
IA20	E13
IA21	E14
IA22	F14
IA23	F11
IA24	G11
IA31	I6
IA32	I5
IA33	I4
IA34	I4
IA35	G3
IA36	H4
IA37	G5
IA38	H5
IA39	G5
IA40	G6
IA42	G1
IA43	G1
IA44	C14
IA45	E8
IA46	B9
IA47	B9
IA48	C7
IA49	C12
IA50	D9
IA51	I5
IB90	G12
IB91	G12
IB92	H11
IB93	H12
IB94	C9
IU05	A4
IU06	B2
IU07	C3
IU08	C3
IU09	D2
IU10	D3
IU12	D5
IU18	E3
IU20	F4
IU21	E2
IU22	F3
IU23	F3
IU24	F4
IU25	F3
IU27	C3
IU28	G2
IU29	G3
IU33	F5
IU34	F7
IU36	F6
IU37	C9
IU38	C8
IU39	D8
IU41	H2
IU42	C8
IU45	C8
IU46	C8
IU51	E8
IU52	D8
IU55	E9
IU57	E9
IU59	E9
IU62	B11
IU63	B11
IU64	B10
IU73	E11
IU74	E12
IU76	F11
IU77	F12
IU79	B10
IU80	F11
IU81	F8
IU84	F10
IU85	E13
IU88	E14
IU89	E13
IU92	F14
IU93	F14
IU94	G13
IU96	A3
IU97	A3
IU98	A5
IU99	A5
cU01	F10
cU02	F9

Layout LCD Supply (42” - v2) (Top Side)

2006	E6
2007	E6
2008	C5
2009	F3
2015	C6
2016	D6
2019	E5
2021	F2
2023	D2
2024	D1
2025	D2
2026	D5
2027	D6
2028	D2
2029	B2
2030	D1
2031	D1
2032	D1
2033	D2
2035	E6
2036	E7
2037	D5
2039	E1
2040	E6
2042	E2
2044	D2
2045	B1
2046	E5
2047	E5
2048	E5
2049	E2
2050	C5
2051	E2
2052	E6
2053	D6
2054	D6
2055	E6
2056	E7
2057	E7
2058	E6
2061	E6
2062	E6
2063	C6
2064	D1
2305	C6
2330	B6
2331	B6
3001	D6
3002	E7
3003	D7
3004	E6
3005	E6
3006	E6
3007	E6
3008	E6
3009	E6
3010	D5
3011	E5
3012	D5
3013	C5
3016	E7
3019	E7
3020	E7
3021	C6
3022	D2
3023	D1
3024	D1
3025	D1
3027	D6
3028	D6
3029	E7
3030	D2
3031	E1
3032	E1
3033	E2
3034	D1
3035	D6
3036	E5
3037	D1
3038	D1
3039	E5
3040	D2
3041	D2
3042	E6
3043	E6
3044	D6
3045	D6
3046	C6
3047	E6
3048	E6
3049	D6
3051	D5
3052	D1
3054	C5
3055	E5
3056	E5
3057	D2
3059	D7
3060	E5
3061	E6
3062	E7
3063	D1
3065	C4
3066	E1
3067	F1
3068	D2
3089	D5
3091	D1
3306	E7
3310	F7
3311	C5
3312	B5
3313	C6
3321	C6
3322	B5
3323	B5
3324	B5
3999	A4
6002	E6
6003	E7
6004	E6
6005	E6
6006	E5
6007	E7
6008	E6
6010	C6
6011	C6
6012	E5
6013	E7
6014	C5
6015	C6
6017	E5
6018	D6
6020	D6
6022	E5
6023	D1
6024	F4
6025	F4
6026	E5
6027	E7
6028	E6
6032	F4
6033	F4
6035	E6
6036	D6
6038	E6
6042	F1
6043	E1
6044	E1
6304	D7
6305	E7
6314	F8
6315	F7
6316	F7
6317	F8
6318	F7
6354	F7
6355	F7
6360	A7
6361	A6
7003	E1
7004	D6
7007	E7
7008	E7
7009	D6
7010	D2
7011	D5
7012	D6
9002	D2
9003	F4
9009	F4
9017	E6
9304	B6
9310	B5
9311	F8
9528	D7


1
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3
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5
6
7
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9
10
11
A
B
C
D
E
F
G
5400
5404
5402
5403
5004
5002
5003
5001
5U01
5U02
1009
1010
1U09
1U10
2815
2816
2H15
2H16
3810
3H10
1306
1307
1304
1309
1303
1320
7001
7U01
SAC LF alloy
ATTENTION : LIVE PARTS

3104 313 6065.2

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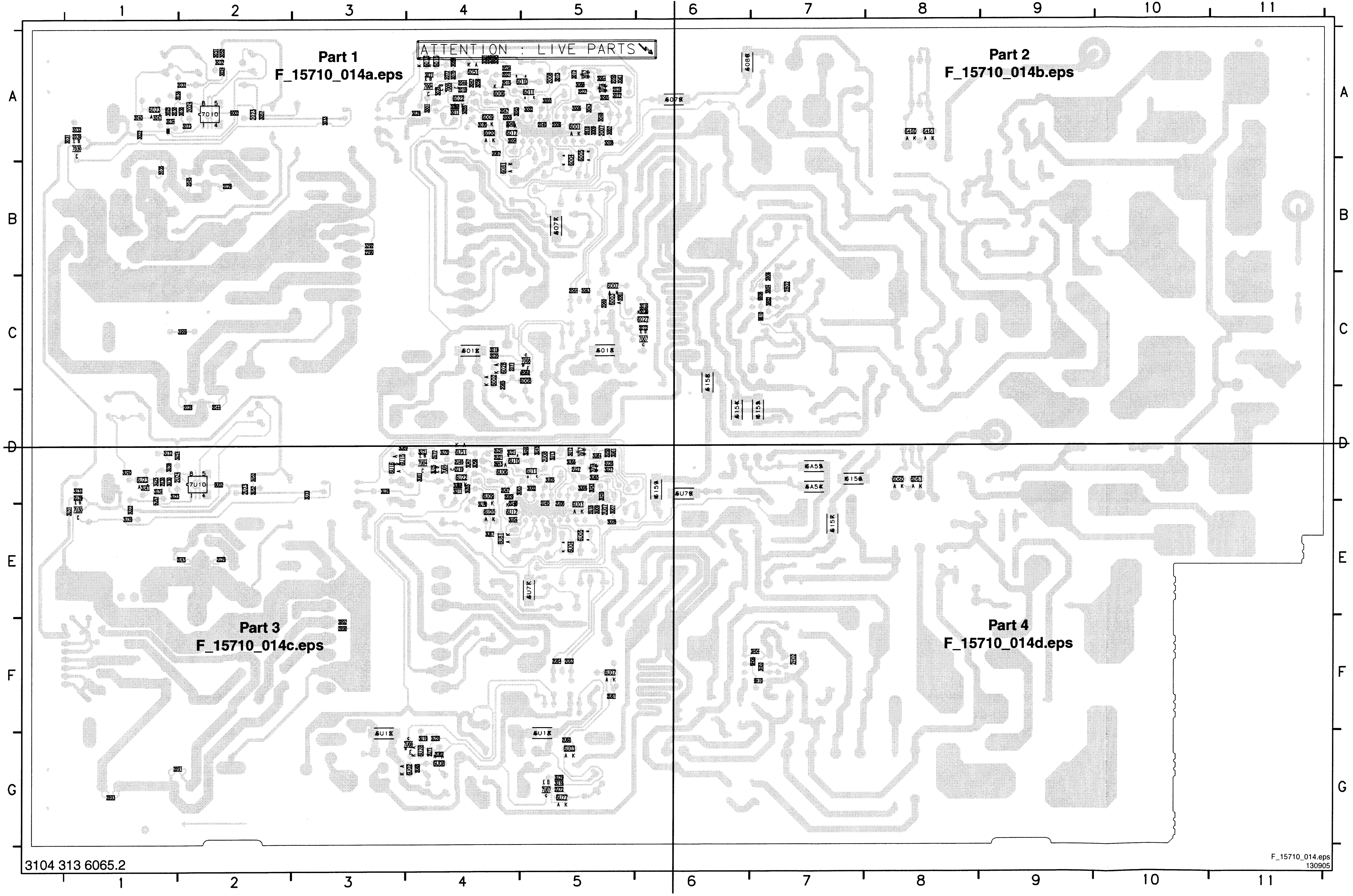
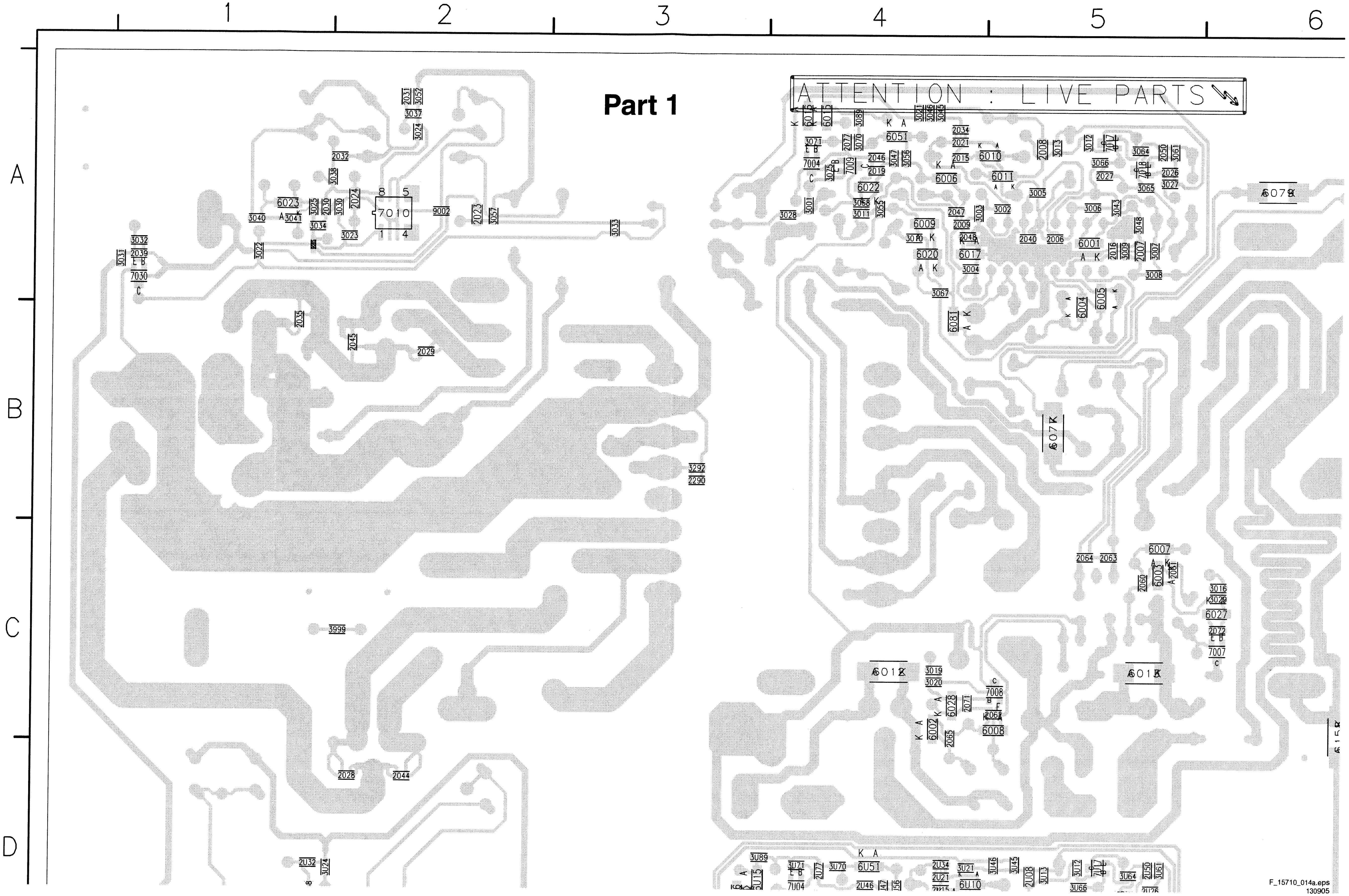
130905

Layout LCD Supply (42” - v2) (Overview Bottom Side)

2006 A5	2024 A2	2035 B1	2060 C5	2290 B3	2U09 D4	2U29 E2	2U48 E4	2U72 G5	3008 A5	3021 A4	3031 A1	3045 A4	3064 A5	3292 B3	3U02 D5	3U11 D4	3U24 D1	3U34 D1	3U48 D5	3U67 E4	6004 B5	6013 C5	6051 A4	6158 C6	6U02 G3	6U11 D5	6U27 G5	7009 A4	7U10 D2	9H10 F7
2007 A5	2026 A5	2039 A1	2061 C5	2802 C7	2U15 D4	2U30 D1	2U50 D5	2U77 D4	3009 A5	3022 A1	3032 A1	3046 A4	3065 A5	3802 C7	3U03 D4	3U12 D5	3U25 D1	3U38 D1	3U52 D2	3U68 D4	6005 A5	6015 A4	6077 B5	6159 D6	6U03 G5	6U12 F3	6U28 G4	7010 A2	7U17 D5	9U02 D2
2008 A5	2027 A5	2040 A5	2062 C5	2B90 F3	2U16 E5	2U32 D1	2U60 G5	3001 A4	3010 A4	3023 A2	3033 A3	3047 A4	3066 A5	3804 C7	3U04 E4	3U13 D5	3U27 D5	3U39 E1	3U55 D4	3U70 D4	6006 A4	6016 A4	6079 A6	6460 A8	6U04 E5	6U13 F5	6U51 D4	7017 A5	7U18 D5	9U57 D1
2009 A4	2028 D2	2044 D2	2063 C5	2B91 G1	2U19 D4	2U34 D4	2U61 F5	3002 A5	3011 A4	3024 A2	3034 A1	3048 A5	3067 A4	3806 C7	3U05 D5	3U16 G5	3U28 D3	3U40 D1	3U56 D4	3U71 D4	6007 C5	6017 A4	6080 A6	6461 A8	6U05 E5	6U15 D4	6U77 E4	7018 A5	7U30 E1	
2015 A4	2029 B2	2045 B2	2064 C5	2B93 G1	2U21 D4	2U39 D1	2U62 G4	3003 A4	3012 A5	3025 A1	3037 A2	3052 A2	3068 A4	3999 C2	3U06 D5	3U19 G4	3U29 G5	3U41 D1	3U57 D2	3U75 D4	6008 C5	6020 A4	6081 B4	6A54 D7	6U06 D4	6U16 D3	6U79 D6	7030 A1	9002 A2	
2016 A5	2030 A1	2046 A4	2065 C4	2H02 F7	2U23 D2	2U40 E5	2U63 F5	3004 A4	3013 A5	3027 A5	3038 A1	3055 A4	3070 A4	3B92 F3	3U07 E5	3U20 G4	3U30 D1	3U43 D5	3U61 D5	3U89 D3	6009 A4	6022 A4	6154 D6	6A55 D7	6U07 F5	6U17 E4	6U81 E4	7U04 D4	9085 A1	
2019 A4	2031 A2	2047 A4	2071 C4	2U06 E5	2U24 D1	2U45 E2	2U64 F5	3005 A5	3016 C6	3028 A4	3040 A1	3056 A4	3071 A4	3H02 F7	3U08 E5	3U21 D4	3U31 E1	3U45 D5	3U64 D5	6001 A5	6010 A5	6023 A1	6155 D6	6D60 D8	6U08 G4	6U20 E4	7004 A4	7U07 G5	9806 C7	
2021 A4	2032 A2	2048 A4	2072 C6	2U07 E5	2U26 D5	2U46 D4	2U65 G4	3006 A5	3019 C4	3029 C6	3041 A1	3057 A2	3075 A4	3H04 F7	3U09 E5	3U22 E1	3U32 D1	3U46 D5	3U65 D5	6002 C4	6011 A5	6027 C6	6156 D7	6D61 D8	6U09 D4	6U22 D4	7007 C6	7U08 G4	9810 C7	
2023 A2	2034 A4	2050 A5	2077 A4	2U08 D5	2U27 D5	2U47 D4	2U71 G4	3007 A5	3020 C4	3030 A2	3043 A5	3061 A5	3089 A4	3U01 D4	3U10 E4	3U23 D1	3U33 D3	3U47 D4	3U66 D5	6003 C5	6012 C4	6028 C4	6157 E7	6U01 D5	6U10 D4	6U23 D1	7008 C5	7U09 D4	9H06 F7	



Layout LCD Supply (42” - v2) (Part 1 Bottom Side)


1
2
3
4
5
6
A
B
C
D
Part 1
ATTENTION : LIVE PARTS
7010
6023
3040
3041
3034
3025
3030
3039
3038
2032
2024
3023
3022
3032
2039
7030
3031
2031
3052
3037
3024
9002
2023
3057
3033
2035
2045
2029
3292
2290
3999
2028
2044
2U32
3U24
6016
6015
3089
3021
3046
3045
6051
2034
2021
6010
2015
3071
7004
3075
2077
3070
7009
2046
2019
3047
3058
6006
6011
2008
3013
3012
7017
3064
2050
3061
3066
2027
7018
3065
2026
3027
6022
3068
3011
3055
3001
3028
3005
2047
3003
3002
3006
3043
6009
2009
3010
2048
6017
2040
2006
6001
2016
3009
2007
3007
3048
3008
6020
3004
3067
6081
6004
6005
6079
6071
6007
2064
2063
6003
2061
2060
3016
3029
6027
2072
7007
6013
3019
3020
7008
6028
2071
2062
6008
6002
2065
6012
6015
3U89
6U15
3U71
7U04
2U77
3U70
6U51
2U46
2U34
2U21
3U21
6U10
3U46
3U45
2U08
3U13
3U12
7U17
3U66
3U64
2U50
3U61
2U26

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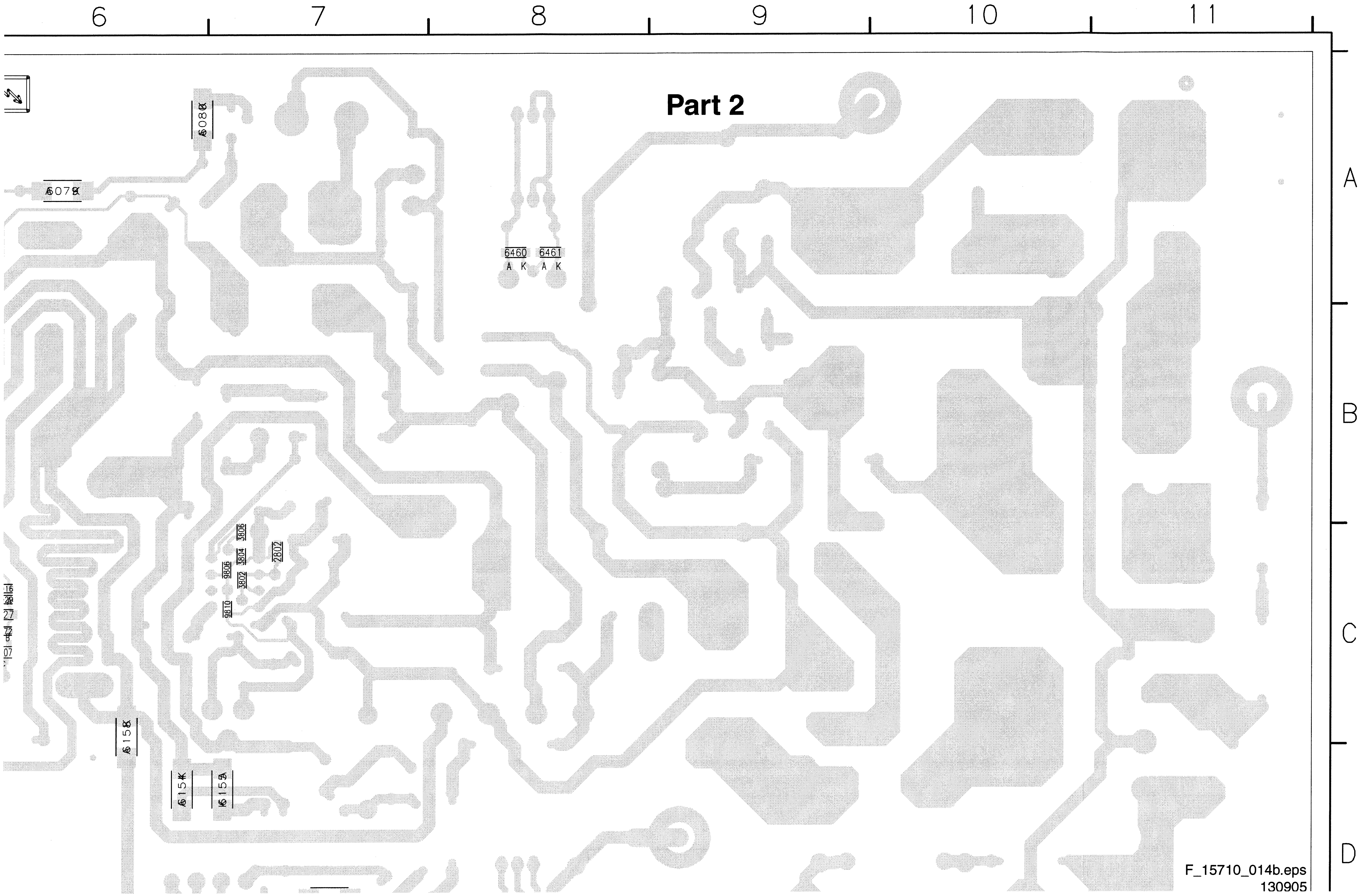
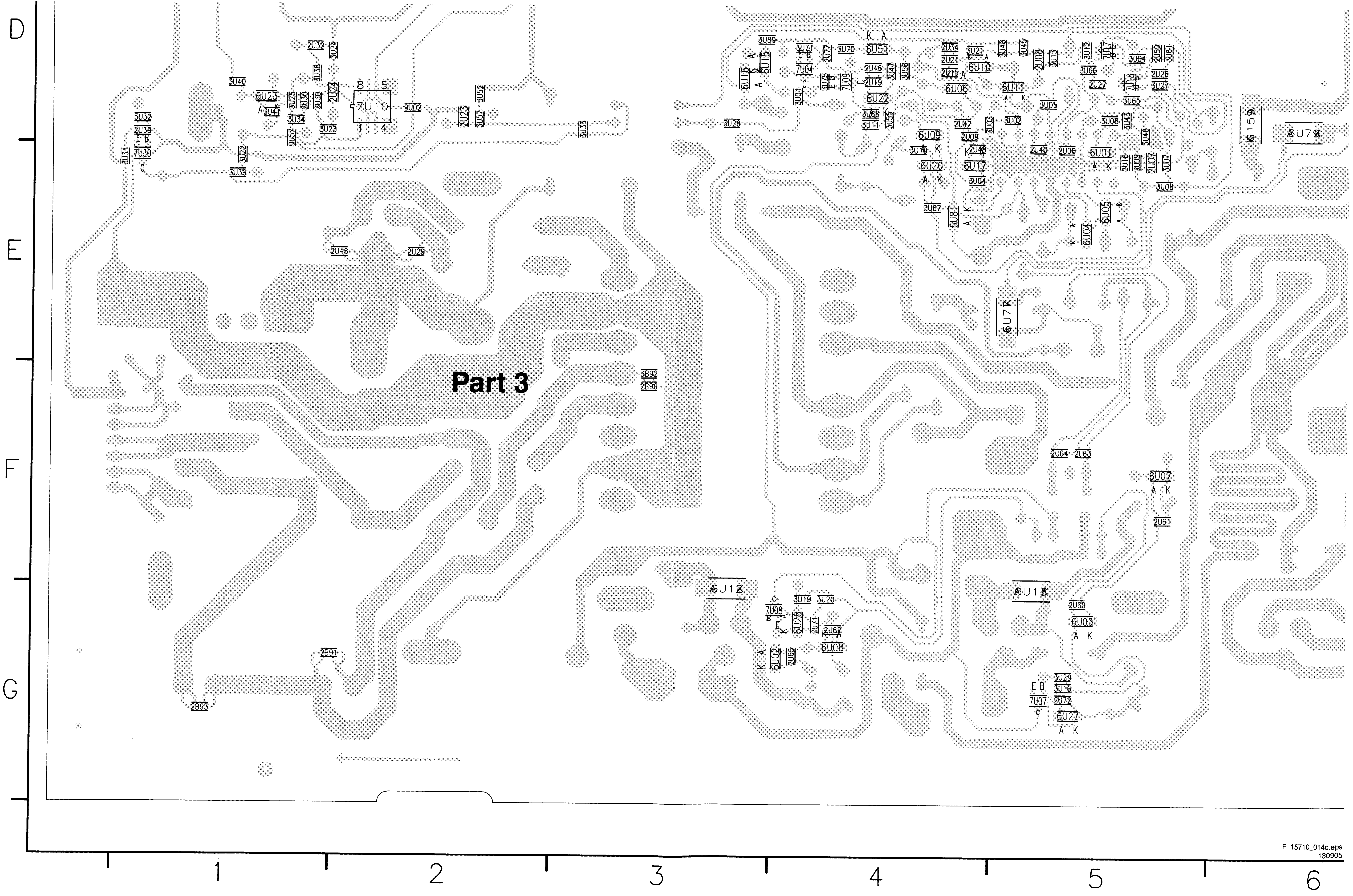
Layout LCD Supply (42" - v2) (Part 2 Bottom Side)


6
7
8
9
10
11
A
B
C
D
Part 2
6080
6079
6460
6461
A K
A K
3806
2802
9806
3804
3802
9810

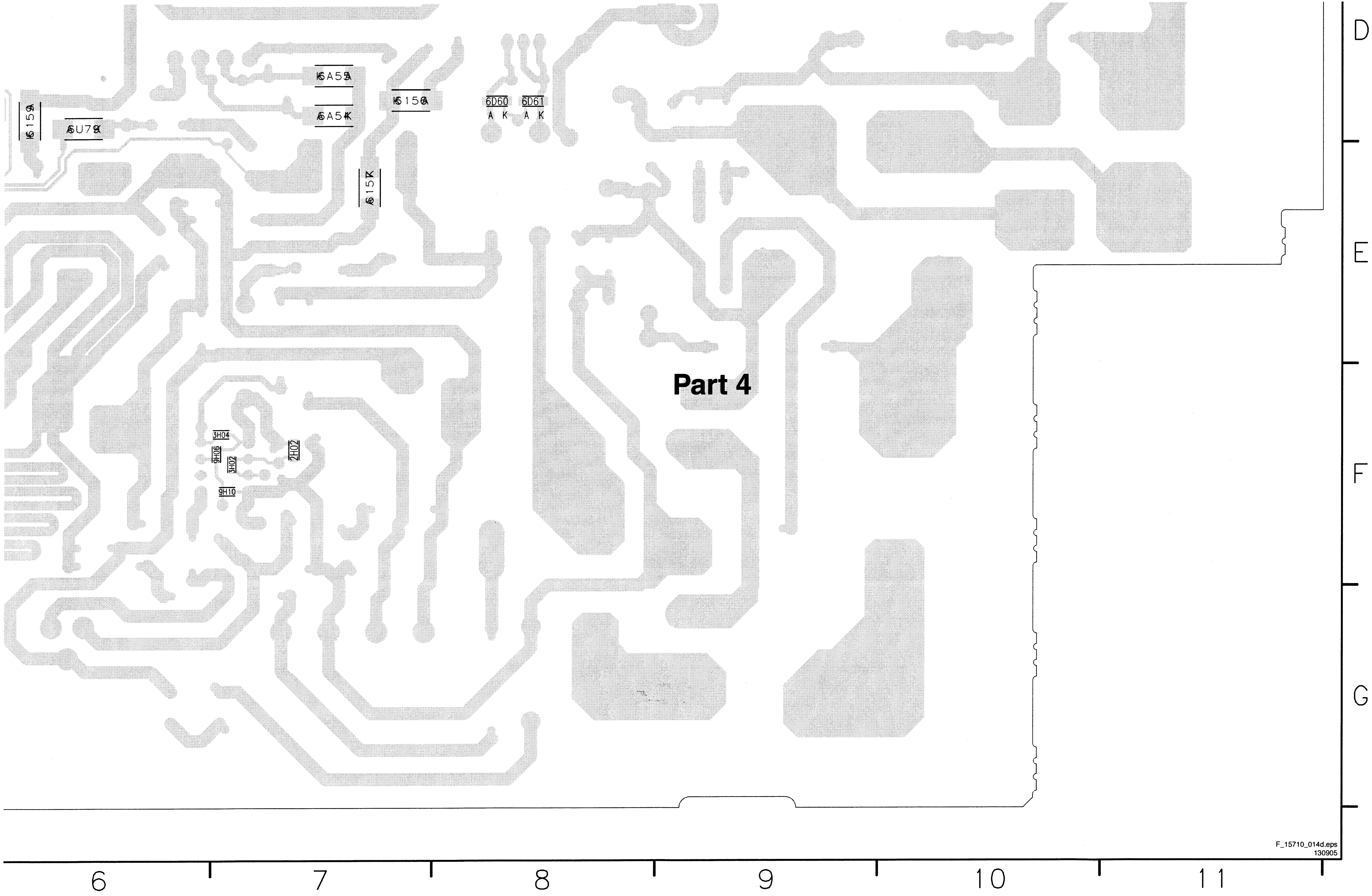
F_15710_014b.eps
130905

Layout LCD Supply (42" - v2) (Part 3 Bottom Side)

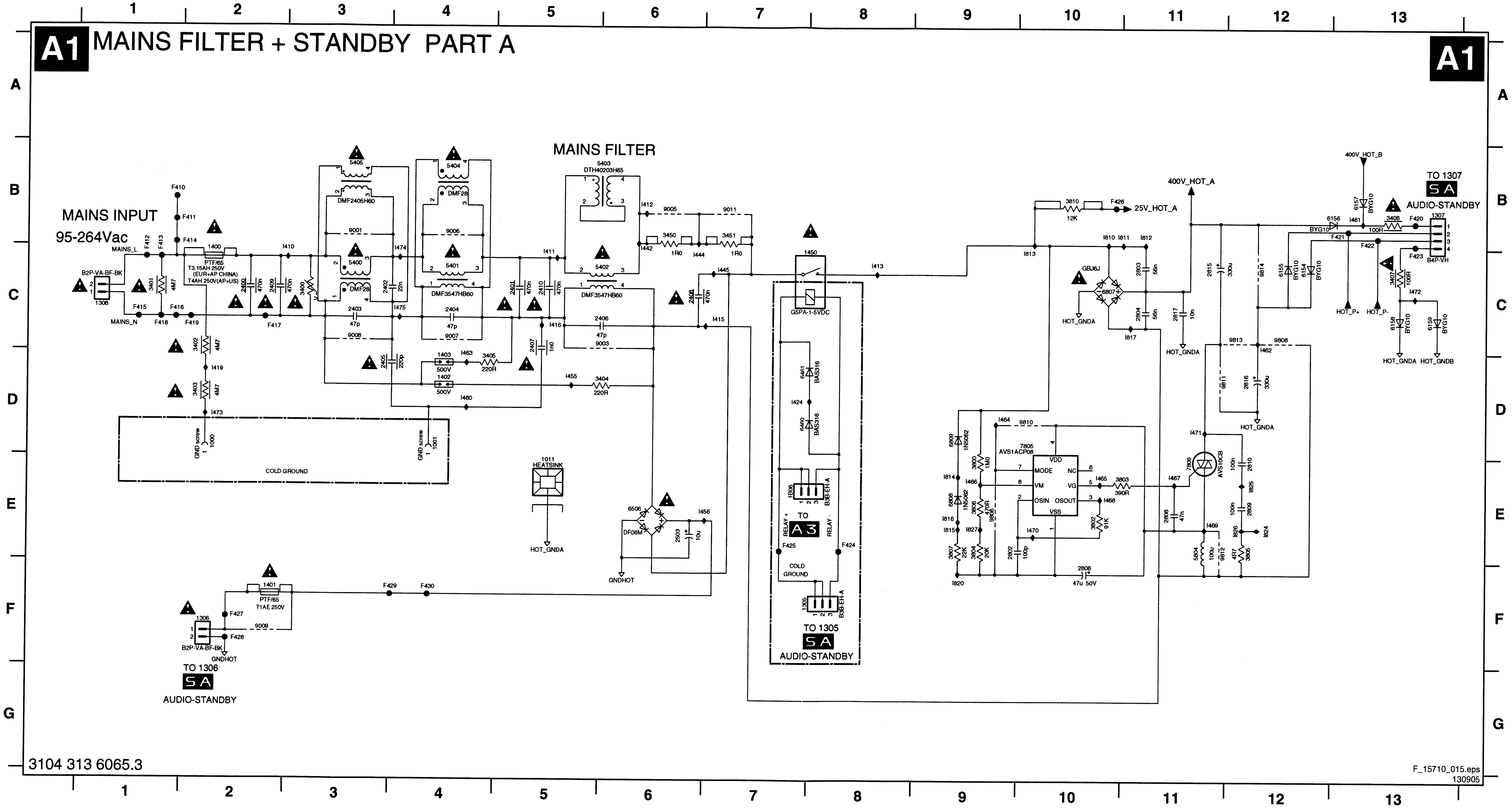

D
E
F
G
1
2
3
4
5
6
Part 3
2U32
3U24
3U40
6U23
3U41
3U25
2U30
3U30
3U38
2U24
7U10
8
5
1
4
9U02
3U34
3U23
9U57
2U23
3U52
3U57
3U33
3U32
2U39
7U30
3U31
3U22
3U39
2U45
2U29
3B92
2B90
2B91
2B93
3U89
6U16
6U15
3U71
7U04
2U77
3U70
6U51
2U46
3U47
3U56
3U01
3U75
7U09
2U19
6U22
3U68
3U11
3U55
3U28
2U34
2U21
2U15
3U21
6U10
6U06
3U46
3U45
2U08
3U13
6U11
3U05
3U12
7U17
3U66
2U27
7U18
3U64
2U50
3U61
2U26
3U27
3U65
2U47
2U09
3U03
3U02
6U09
3U10
6U20
2U48
6U17
3U04
2U40
2U06
6U01
3U06
3U43
3U48
2U16
3U09
2U07
3U07
3U08
3U67
6U81
6U05
6U04
6U15
6U79
6U78
2U64
2U63
6U07
2U61
6U12
3U19
3U20
7U08
6U28
2U71
2U62
6U08
6U02
2U65
6U13
2U60
6U03
3U29
3U16
7U07
2U72
6U27
A
K
E
B
C

F_15710_014c.eps
130905

Layout LCD Supply (42” - v2) (Part 4 Bottom Side)

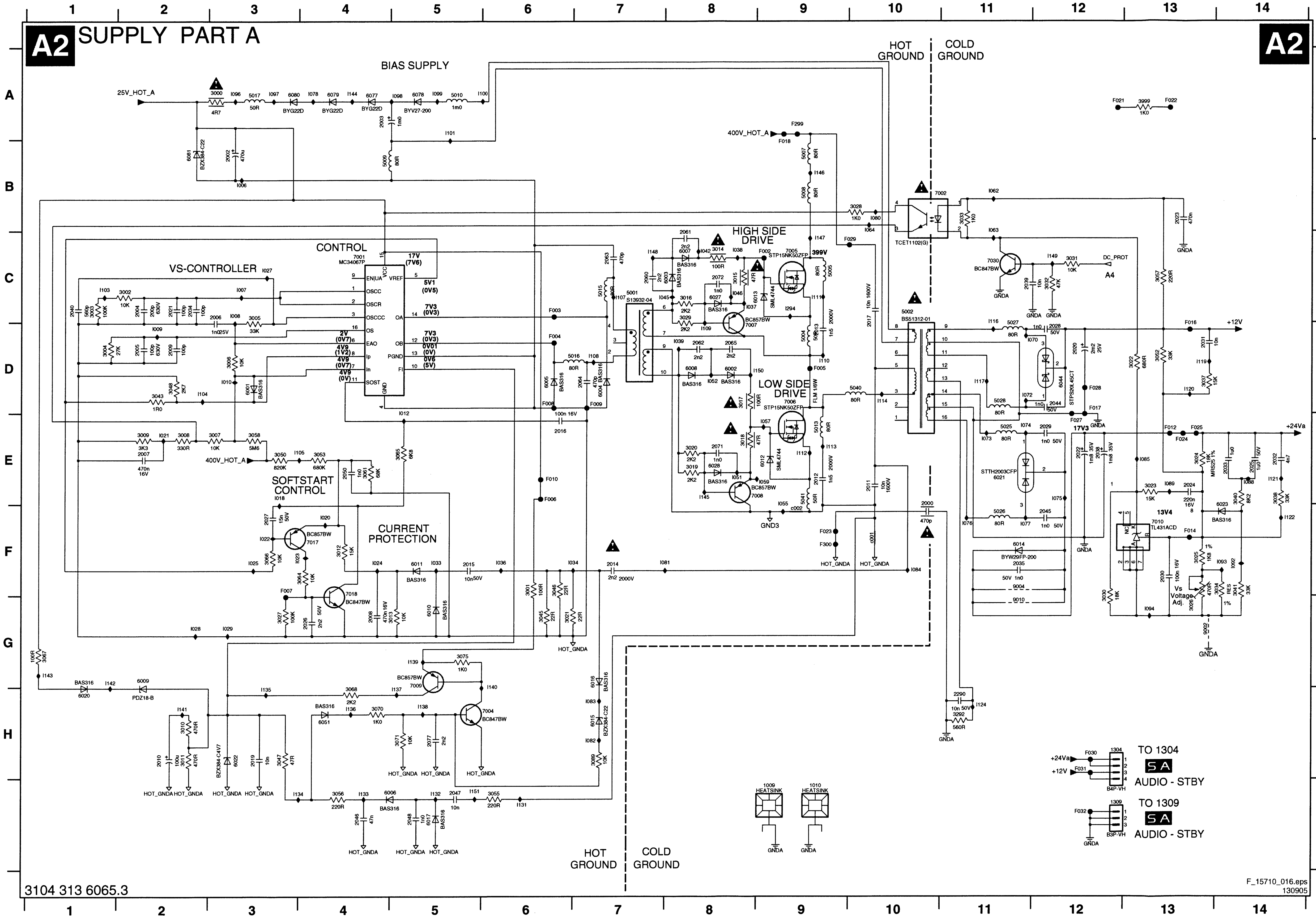

6A53
6150
6D60
6D61
A K
A K
6159
6U79
6A54
6157
3H04
9H06
3H02
2H02
9H10
Part 4
D
E
F
G
6
7
8
9
10
11
F_15710_014d.eps
130905

LCD Supply (42” - v3): MF + Standby Part A


A1
MAINS FILTER + STANDBY PART A
A1
MAINS INPUT
95-264Vac
MAINS_L
MAINS_N
B2P-VA-BF-BK
1308
F410
F411
F412
F413
F414
F415
F416
F417
F418
F419
1400
PTF/65
T3.15AH 250V
(EUR+AP CHINA)
T4AH 250V(AP+US)
3401 4M7
3402 4M7
3403 4M7
I419
I473
I410
2400 470n
2409 470n
3400
5405
DMF2405H60
9001
5400
DMF28
2402 22n
2403 47p
9008
I474
I475
5404
DMF28
9006
5401
DMF3547HB60
2404 47p
9007
2405 220p
1403 500V
1402 500V
I463
3405 220R
I460
GND screw 1 1000
GND screw 1 1001
COLD GROUND
MAINS FILTER
5403
DTH40203H65
I411
2401 470n
2410 470n
5402
DMF3547HB60
2406 47p
9003
I416
2407 1n0
I455
3404 220R
I412
9005
9011
3450 1R0
3451 1R0
I442
I444
I445
2408 470n
I415
1011
HEATSINK
HOT_GNDA
6506
DF06M
2503 10u
I456
GNDHOT
1450
G5PA-1-5VDC
I413
6461 BAS316
I424
6460 BAS316
1B06 B3B-EH-A
RELAY +
TO
A3
RELAY -
F425
F424
COLD GROUND
1305 B3B-EH-A
TO 1305
SA
AUDIO-STANDBY
1401
PTF/65
T1AE 250V
F427
F428
9009
1306
B2P-VA-BF-BK
GNDHOT
TO 1306
SA
AUDIO-STANDBY
F429
F430
3810 12K
F426
25V_HOT_A
400V_HOT_A
I813
I810
I811
I812
GBJ6J
6807
HOT_GNDA
2803 56n
2804 56n
I817
2817 10n
HOT_GNDA
2815 330u
9814
9813
9808
I462
9811
2816 330u
HOT_GNDA
400V_HOT_B
6157 BYG10
6156 BYG10
I461
3406 100R
F420
F421
F422
F423
6155 BYG10
6154 BYG10
HOT_P+
HOT_P-
3407 100R
I472
6158 BYG10
6159 BYG10
HOT_GNDA
HOT_GNDB
TO 1307
SA
AUDIO-STANDBY
1307
B4P-VH
I464
9810
7805
AVS1ACP08
VDD
MODE
NC
VM
VG
OSIN
OSOUT
VSS
6809 1N5062
6808 1N5062
3800 1M0
3806 470R
9806
I814
I466
I816
I815
I827
3807 22K
3804 20K
2802 100p
I470
3802 91K
I468
I465
3803 390R
I820
2806
47u 50V
I467
7806
AVS10CB
I471
2808 47n
I469
5804 100u
9812
2810 100n
I825
2809 100n
I826
I824
3805 4R7
3104 313 6065.3
F_15710_015.eps
130905

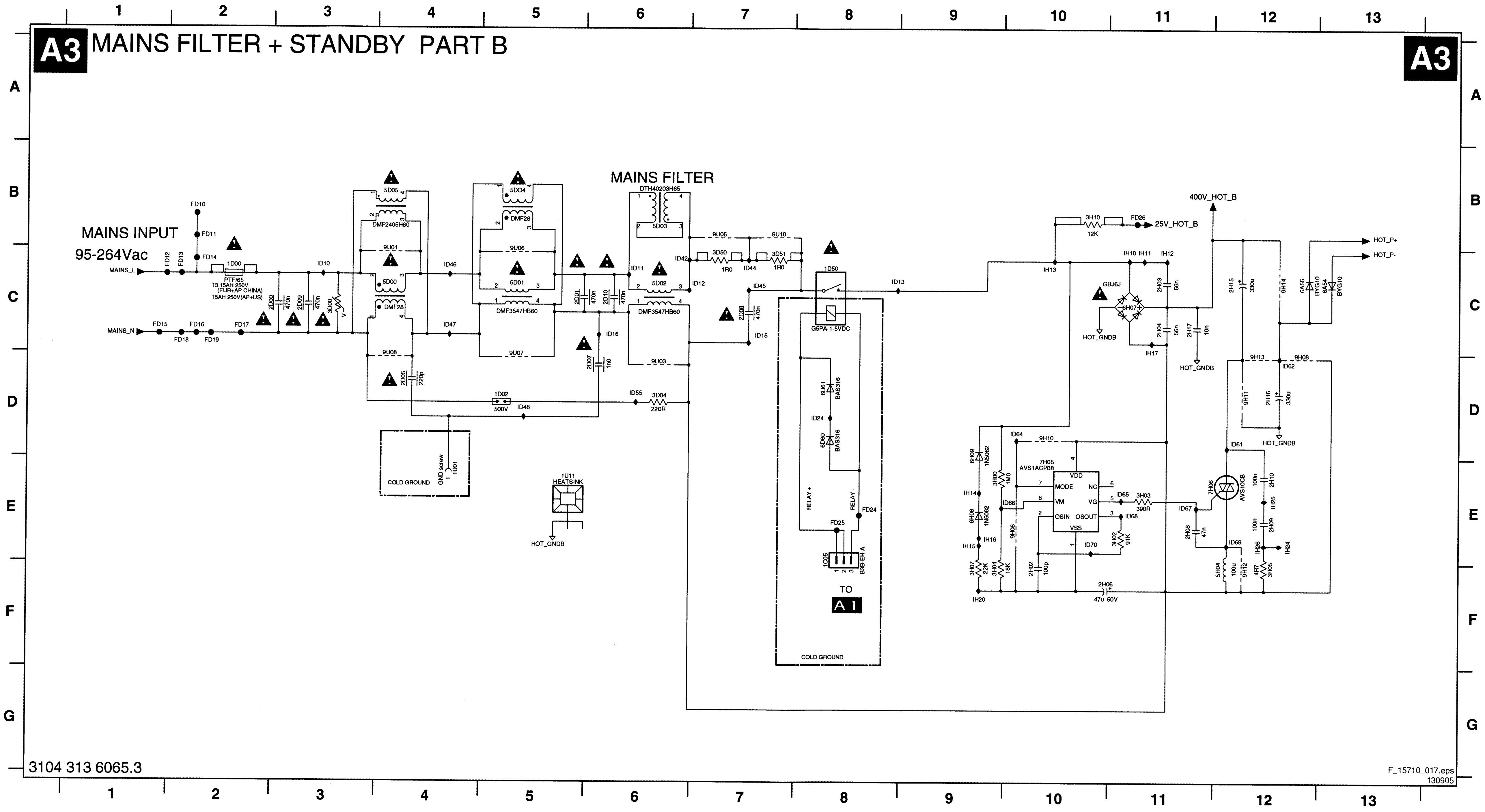
1000	D2
1001	D4
1011	E5
1305	F7
1306	F2
1307	B13
1308	C1
1400	C2
1401	F2
1402	D4
1403	D4
1450	C8
1B06	E7
2400	C2
2401	C5
2402	C3
2403	C3
2404	C4
2405	D3
2406	C6
2407	C5
2408	C6
2409	C2
2410	C5
2503	E6
2802	E9
2803	C11
2804	C11
2806	F10
2808	E11
2809	E12
2810	E12
2815	C11
2816	D12
2817	C11
3400	C3
3401	C1
3402	C2
3403	D2
3404	D6
3405	D4
3406	B13
3407	C13
3450	B6
3451	B7
3800	E9
3802	E10
3803	E11
3804	E9
3805	E12
3806	E9
3807	E9
3810	B10
5400	C3
5401	C4
5402	C6
5403	B6
5404	B4
5405	B3
5804	E11
6154	C12
6155	C12
6156	B13
6157	B13
6158	C13
6159	C13
6460	D7
6461	D7
6506	E6
6807	C10
6808	E9
6809	D9
7805	D10
7806	E11
9001	B3
9003	C6
9005	B6
9006	B4
9007	C4
9008	C3
9009	F2
9011	B7
9806	E9
9808	C12
9810	D10
9811	D11
9812	E11
9813	C12
9814	C12
F410	B1
F411	B2
F412	B1
F413	B1
F414	B2
F415	C1
F416	C1
F417	C2
F418	C1
F419	C2
F420	B13
F421	B13
F422	B13
F423	C13
F424	E8
F425	E7
F426	B10
F427	F2
F428	F2
F429	F4
F430	F4
I410	C3
I411	C5
I412	B6
I413	C8
I415	C7
I416	C5
I419	D2
I424	D7
I442	C6
I444	C6
I445	C7
I455	D5
I456	E7
I460	D4
I461	B13
I462	C12
I463	D4
I464	D9
I465	E10
I466	E9
I467	E11
I468	E10
I469	E11
I470	E10
I471	D11
I472	C13
I473	D2
I474	C4
I475	C4
I810	B10
I811	B11
I812	B11
I813	C10
I814	E9
I815	E9
I816	E9
I817	C11
I820	F9
I824	E12
I825	E12
I826	E12
I827	E9

LCD Supply (42” - v3): Supply Part A


A2
SUPPLY PART A
BIAS SUPPLY
25V_HOT_A
400V_HOT_A
CONTROL
7001
MC34067P
VS-CONTROLLER
17V
(7V6)
5V1
(0V5)
7V3
(0V3)
SOFTSTART
CONTROL
CURRENT
PROTECTION
HIGH SIDE
DRIVE
7005
STP15NK50ZFP
399V
LOW SIDE
DRIVE
7006
STP15NK50ZFP
5001
S13932-04
5002
BS51312-01
HOT
GROUND
COLD
GROUND
7002
TCET1102(G)
7030
BC847BW
DC_PROT
A4
+12V
+24Va
17V3
13V4
7010
TL431ACD
Vs
Voltage
Adj.
GND3
GNDA
HOT_GNDA
1009
HEATSINK
1010
HEATSINK
TO 1304
5A
AUDIO - STBY
TO 1309
5A
AUDIO - STBY
3104 313 6065.3
F_15710_016.eps
130905

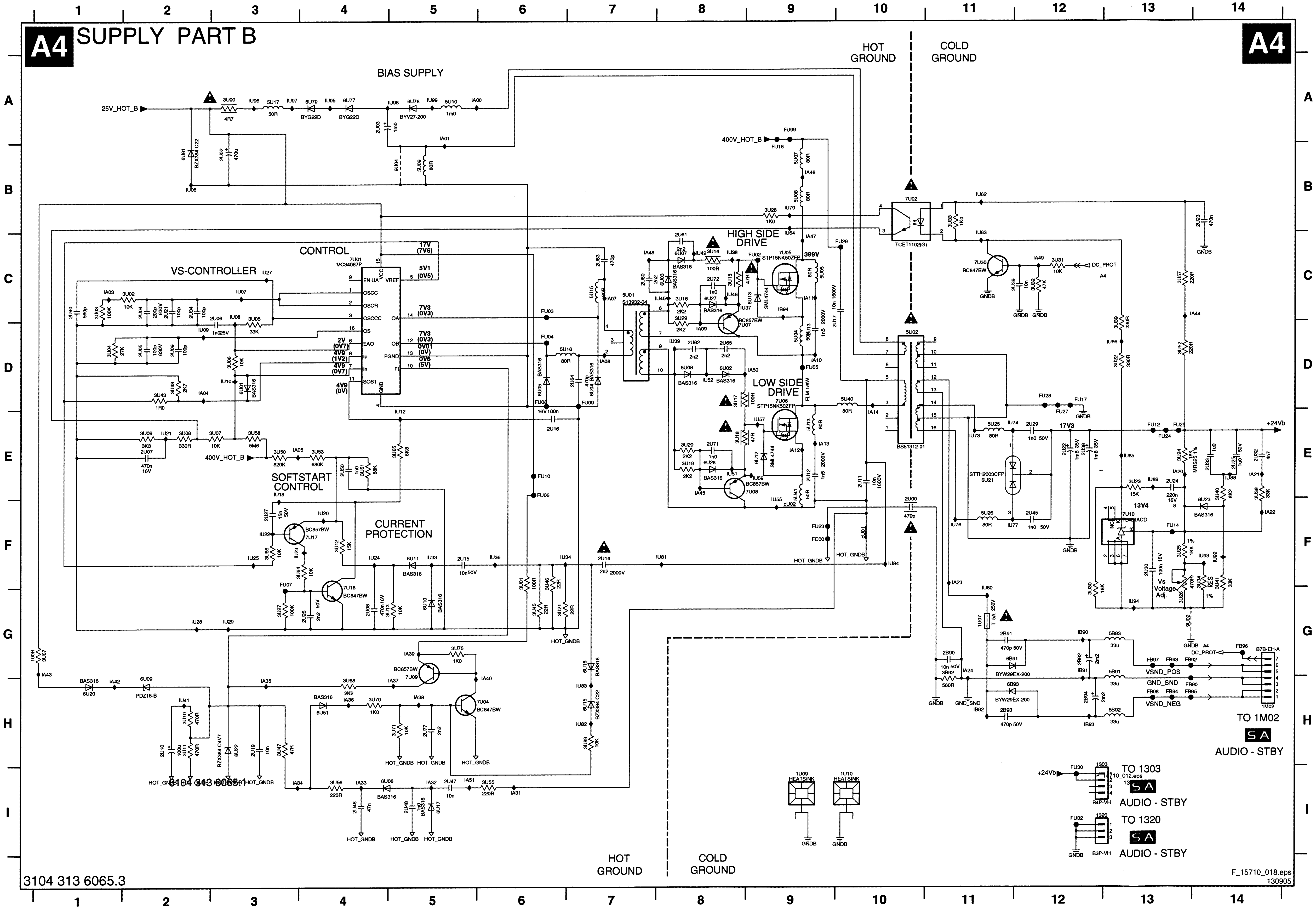
1009	I9
1010	I9
1304	H12
1309	I12
2000	F10
2002	B3
2003	A4
2004	C2
2005	D2
2006	C3
2007	E2
2008	G4
2009	D2
2010	H2
2011	E10
2012	E9
2013	D9
2014	F7
2015	F5
2016	E6
2017	C10
2019	H3
2020	D12
2021	C2
2022	E12
2023	B13
2024	E13
2025	E14
2026	G4
2027	F3
2028	D12
2029	E12
2030	F13
2031	D13
2032	E14
2033	E14
2034	C2
2035	F11
2038	E12
2039	C11
2040	C1
2044	D12
2045	F12
2046	I4
2047	I5
2048	I5
2050	E4
2060	C7
2061	C8
2062	D8
2063	C7
2064	D7
2065	D8
2071	E8
2072	C8
2077	H5
2290	H11
3000	A3
3001	F6
3002	C2
3003	C1
3004	D1
3005	C3
3006	D3
3007	E3
3008	E2
3009	E2
3010	H2
3011	H2
3012	F4
3013	G5
3014	C8
3015	C8
3016	C8
3017	D8
3018	E8
3019	E8
3020	E8
3021	G6
3022	D13
3023	E13
3024	E13
3025	F13
3026	G13
3027	G3
3028	B10
3029	C8
3030	G12
3031	C12
3032	C12
3033	B11
3034	F14
3037	D13
3038	E14
3040	E14
3041	F14
3043	D2
3045	G6
3046	F6
3047	H3
3048	D2
3050	E3
3052	D13
3053	E4
3055	I6
3056	I4
3057	C13
3058	E3
3061	E4
3064	F4
3065	E5
3066	F3
3067	G1
3068	H4
3070	H4
3071	H5
3075	G5
3089	H7
3292	H11
3999	A13
5001	C7
5002	C10
5004	D9
5005	C9
5007	B9
5008	B9
5009	B4
5010	A5
5013	E9
5015	C7
5016	D7
5017	A3
5025	E11
5026	F11
5027	D11
5028	D11
5040	D10
5041	E9
6001	D3
6002	D8
6003	C8
6004	D7
6005	D6
6006	I5
6007	C8
6008	D8
6009	G2
6010	G5
6011	F5
6012	E9
6013	C9
6014	F11
6015	H7
6016	G7
6017	I5
6020	H1
6021	E11
6022	H3
6023	F14
6027	C8
6028	E8
6044	D12
6051	H4
6077	A4
6078	A5
6079	A4
6080	A3
6081	B2
7001	C4
7002	B10
7004	H6
7005	C9
7006	D9
7007	D8
7008	E8
7009	G5
7010	F13
7017	F4
7018	F4
7030	C11
9002	G13
9004	F11
9010	G11
F002	C9
F003	C6
F004	D6
F005	D9
F006	E6
F007	F3
F008	D6
F009	D7
F010	E6
F012	E13
F014	F13
F016	D13
F017	D12
F018	B9
F021	A12
F022	A13
F023	F9
F024	E13
F025	E13
F027	E12
F028	D12
F029	C10
F030	H12
F031	H12
F032	I12
F299	A9
F300	F9
I006	B3
I007	C3
I008	C3
I009	D2
I010	D3
I012	D5
I018	E3
I020	F4
I021	E2
I022	F3
I023	F3
I024	F4
I025	F3
I027	C3
I028	G2
I029	G3
I033	F5
I034	F7
I036	F6
I037	C8
I038	C8
I039	D8
I042	C8
I045	C7
I046	C8
I051	E8
I052	D8
I055	E9
I057	E9
I059	E9
I062	B11
I063	B11
I064	B10
I070	D12
I072	D11
I073	E11
I074	E11
I075	E12
I076	F11
I077	F11
I078	A4
I080	B10
I081	F8
I082	H7
I083	H7
I084	F10
I085	E13
I088	E14
I089	E13
I092	F14
I093	F14
I094	G13
I096	A3
I097	A3
I098	A5
I099	A5
I100	A6
I101	A5
I103	C1
I104	D2
I105	E4
I107	C7
I108	D7
I109	D8
I110	D9
I111	C9
I112	E9
I113	E9
I114	D10
I116	C11
I117	D11
I119	D13
I120	D13
I121	E14
I122	F14
I124	H11
I131	I6
I132	I5
I133	I4
I134	I4
I135	H3
I136	H4
I137	H5
I138	H5
I139	G5
I140	G6
I141	H2
I142	G1
I143	G1
I144	A4
I145	E8
I146	B9
I147	C9
I148	C7
I149	C12
I150	D9
I151	I5
I294	C9
c001	F10
c002	F9

LCD Supply (42” - v3): MF + Standby Part B


1
2
3
4
5
6
7
8
9
10
11
12
13
A
B
C
D
E
F
G
A3
MAINS FILTER + STANDBY PART B
MAINS INPUT
95-264Vac
MAINS_L
MAINS_N
FD10
FD11
FD12
FD13
FD14
FD15
FD16
FD17
FD18
FD19
1D00
PTF/65
T3.15AH 250V
(EUR+AP CHINA)
T5AH 250V(AP+US)
ID10
2D00
470n
2D09
470n
3D00
5D05
DMF2405H60
9U01
5D00
DMF28
9U08
2D05
220p
ID46
ID47
5DO4
DMF28
9U06
5D01
DMF3547HB60
9U07
2D01
470n
2D10
470n
1D02
500V
ID48
ID16
2D07
1n0
ID55
3D04
220R
MAINS FILTER
DTH40203H65
5D03
ID11
5D02
DMF3547HB60
9U03
ID42
ID12
9U05
9U10
3D50
1R0
ID44
3D51
1R0
ID45
2D08
470n
ID15
COLD GROUND
GND screw
1U01
1U11
HEATSINK
HOT_GNDB
1D50
G5PA-1-5VDC
6D61
BAS316
ID24
6D60
BAS316
RELAY +
RELAY -
FD24
FD25
1C05
B3B-EH-A
TO
A 1
COLD GROUND
ID13
3H10
12K
FD26
25V_HOT_B
400V_HOT_B
IH13
IH10
IH11
IH12
GBJ6J
6H07
HOT_GNDB
2H03
56n
2H04
56n
IH17
2H17
10n
HOT_GNDB
2H15
330u
9H14
6A55
BYG10
6A54
BYG10
HOT_P+
HOT_P-
9H13
9H08
ID62
9H11
2H16
330u
HOT_GNDB
ID64
9H10
6H09
1N5062
3H00
1M0
7H05
AVS1ACP08
VDD
MODE
NC
VM
VG
OSIN
OSOUT
VSS
IH14
ID66
6H08
1N5062
9H06
ID65
3H03
390R
ID68
3H02
91K
ID70
IH16
IH15
3H07
22K
3H04
18K
2H02
100p
2H06
47u 50V
IH20
ID61
7H06
AVS10CB
2H10
100n
IH25
2H09
100n
ID67
2H08
47n
ID69
5H04
100u
9H12
IH26
IH24
4R7
3H05
3104 313 6065.3
F_15710_017.eps
130905

1C05	E8
1D00	C2
1D02	D5
1D03	D5
1D50	C8
1U01	E4
1U11	E5
2D00	C2
2D01	C5
2D03	C4
2D04	C5
2D05	D4
2D06	C6
2D07	D6
2D08	C7
2D09	C3
2D10	C6
2H02	F10
2H03	C11
2H04	C11
2H06	F10
2H08	E11
2H09	E12
2H10	E12
2H15	C12
2H16	D12
2H17	C11
3D00	C3
3D04	D6
3D05	D5
3D50	C7
3D51	C7
3H00	E9
3H02	E11
3H03	E11
3H04	F9
3H05	F12
3H07	F9
3H10	B10
5D00	C4
5D01	C5
5D02	C6
5D03	B6
5D05	B4
5DO4	B5
5H04	F12
6A54	C13
6A55	C12
6D60	D8
6D61	D8
6H07	C11
6H08	E9
6H09	D9
7H05	E10
7H06	E11
9H06	E10
9H08	D12
9H10	D10
9H11	D12
9H12	F12
9H13	D12
9H14	C12
9U01	C4
9U03	D6
9U05	B7
9U06	C5
9U07	D5
9U08	D4
9U10	B7
FD10	B2
FD11	B2
FD12	C1
FD13	C2
FD14	C2
FD15	C1
FD16	C2
FD17	C2
FD18	C2
FD19	C2
FD24	E8
FD25	E8
FD26	B11
ID10	C3
ID11	C6
ID12	C7
ID13	C8
ID15	C7
ID16	C6
ID24	D8
ID42	C6
ID44	C7
ID45	C7
ID46	C4
ID47	C4
ID48	D5
ID55	D6
ID61	D12
ID62	D12
ID63	D5
ID64	D10
ID65	E11
ID66	E10
ID67	E11
ID68	E11
ID69	E12
ID70	E10
IH10	C11
IH11	C11
IH12	C11
IH13	C10
IH14	E9
IH15	E9
IH16	E9
IH17	C11
IH20	F9
IH24	E12
IH25	E12
IH26	E12

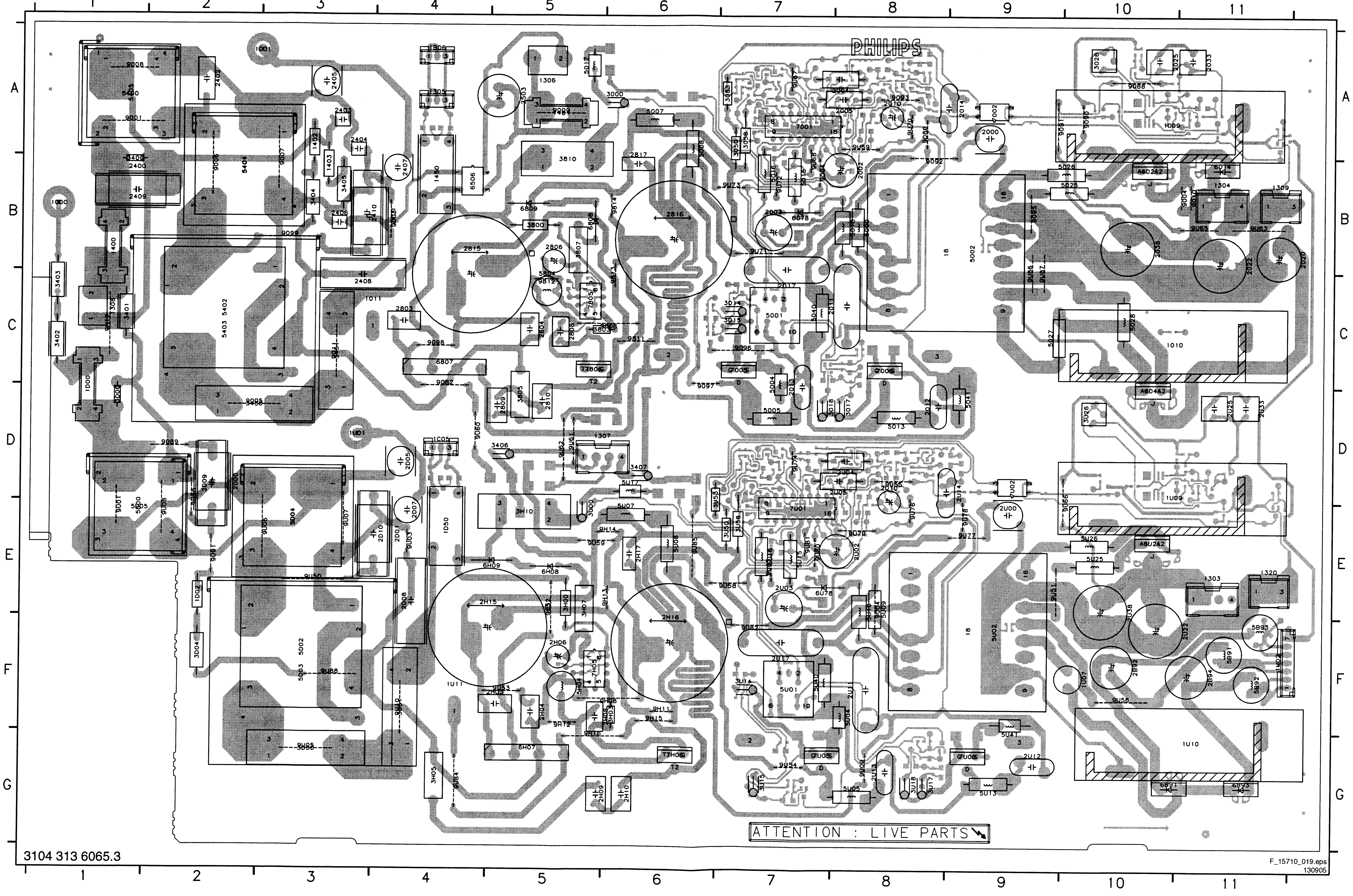
LCD Supply (42" - v3): Supply Part B


A4
SUPPLY PART B
BIAS SUPPLY
HOT GROUND
COLD GROUND
25V_HOT_B
400V_HOT_B
CONTROL
MC34067P
VS-CONTROLLER
SOFTSTART CONTROL
CURRENT PROTECTION
HIGH SIDE DRIVE
LOW SIDE DRIVE
STP15NK50ZFP
399V
TCET1102(G)
BC847BW
BC857BW
BS51312-01
STTH2003CFP
DC_PROT
+24Vb
17V3
13V4
Vs Voltage Adj.
VSND_POS
GND_SND
VSND_NEG
TO 1M02
5A
AUDIO - STBY
TO 1303
TO 1320
HEATSINK
GNDB
HOT_GNDB
3104 313 6065.3
F_15710_018.eps
130905
1 2 3 4 5 6 7 8 9 10 11 12 13 14
A B C D E F G H I

1303	I12
1320	I12
1M02	H14
1U07	G11
1U09	I9
1U10	I10
2B90	G11
2B91	G11
2B92	G12
2B93	H11
2B94	H12
2U00	F10
2U02	B3
2U03	A4
2U04	C2
2U05	D2
2U06	C3
2U07	E2
2U08	G4
2U09	D2
2U10	H2
2U11	E10
2U12	E9
2U13	D9
2U14	F7
2U15	F5
2U16	E6
2U17	D10
2U19	H3
2U21	C2
2U22	E12
2U23	B14
2U24	E13
2U25	E14
2U26	G4
2U27	F3
2U29	E12
2U30	F13
2U32	E14
2U33	E14
2U34	C2
2U38	E12
2U39	C12
2U40	C1
2U45	F12
2U46	I4
2U47	I5
2U48	I5
2U50	E4
2U60	C7
2U61	C8
2U62	D8
2U63	C7
2U64	D7
2U65	D8
2U71	E8
2U72	C8
2U77	H5
3B92	G11
3U00	A3
3U01	F6
3U02	C2
3U03	C1
3U04	D1
3U05	C3
3U06	D3
3U07	E3
3U08	E2
3U09	E2
3U10	H2
3U11	H2
3U12	F4
3U13	G5
3U14	C8
3U15	C8
3U16	C8
3U17	D8
3U18	E8
3U19	E8
3U20	E8
3U21	G6
3U22	D13
3U23	E13
3U24	E13
3U25	F13
3U26	G13
3U27	G3
3U28	B9
3U29	C8
3U30	G12
3U31	C12
3U32	C12
3U33	B11
3U34	F14
3U38	E14
3U39	D13
3U40	E14
3U41	F14
3U43	D2
3U45	G6
3U46	F6
3U47	H3
3U48	D2
3U50	E3
3U52	D13
3U53	E4
3U55	I6
3U56	I4
3U57	C13
3U58	E3
3U61	E4
3U64	F4
3U65	E5
3U66	F3
3U67	G1
3U68	H4
3U70	H4
3U71	H5
3U75	G5
3U89	H7
5B91	G13
5B92	H13
5B93	G13
5U01	C7
5U02	D10
5U04	D9
5U05	C9
5U07	B9
5U08	B9
5U09	B5
5U10	A5
5U13	E9
5U15	C7
5U16	D6
5U17	A3
5U25	E11
5U26	F11
5U40	D10
5U41	E9
6B91	G11
6B93	H11
6U01	D3
6U02	D8
6U03	C8
6U04	D7
6U05	D6
6U06	I4
6U07	C8
6U08	D8
6U09	H2
6U10	G5
6U11	F5
6U12	E9
6U13	C9
6U15	H7
6U16	G7
6U17	I5
6U20	H1
6U21	E11
6U22	H3
6U23	F14
6U27	C8
6U28	E8
6U51	H4
6U77	A4
6U78	A5
6U79	A4
6U81	B2
7U01	C4
7U02	B10
7U04	H5
7U05	C9
7U06	D9
7U07	D8
7U08	E8
7U09	G5
7U10	F13
7U17	F4
7U18	G4
7U30	C11
9U02	G13
9U04	B5
FB90	H13
FB92	G13
FB93	G13
FB94	H13
FB95	H13
FB96	G14
FB97	G13
FB98	H13
FC00	F9
FU02	C9
FU03	C6
FU04	D6
FU05	D9
FU06	E6
FU07	F3
FU08	D6
FU09	D7
FU10	E6
FU12	E13
FU14	F13
FU17	D12
FU18	B9
FU23	F9
FU24	E13
FU25	E13
FU27	E12
FU28	D12
FU29	C10
FU30	I12
FU32	I12
FU99	A9
IA00	A5
IA01	A5
IA03	C1
IA04	D2
IA05	E3
IA07	C7
IA08	D7
IA09	D8
IA10	D9
IA11	C9
IA12	E9
IA13	E9
IA14	E10
IA20	E13
IA21	E14
IA22	F14
IA23	F11
IA24	G11
IA31	I6
IA32	I5
IA33	I4
IA34	I3
IA35	H3
IA36	H4
IA37	H5
IA38	H5
IA39	G5
IA40	H6
IA42	H1
IA43	G1
IA44	C14
IA45	E8
IA46	B9
IA47	C9
IA48	C7
IA49	C12
IA50	D9
IA51	I5
IB90	G12
IB91	G12
IB92	H11
IB93	H12
IB94	C9
IU05	A4
IU06	B2
IU07	C3
IU08	C3
IU09	D2
IU10	D3
IU12	E5
IU18	E3
IU20	F4
IU21	E2
IU22	F3
IU23	F3
IU24	F4
IU25	F3
IU27	C3
IU28	G2
IU29	G3
IU33	F5
IU34	F6
IU36	F6
IU37	C8
IU38	C8
IU39	D8
IU41	H2
IU42	C8
IU45	C8
IU46	C8
IU51	E8
IU52	D8
IU55	F9
IU57	E9
IU59	E9
IU62	B11
IU63	C11
IU64	C9
IU73	E11
IU74	E11
IU76	F11
IU77	F11
IU79	B9
IU80	G11
IU81	F8
IU82	H7
IU83	H7
IU84	F10
IU85	E13
IU86	D13
IU88	E14
IU89	E13
IU92	F14
IU93	F14
IU94	G13
IU96	A3
IU97	A3
IU98	A5
IU99	A5
cU01	F10
cU02	F9

Layout LCD Supply (42" - v3) (Top Side)

1000 B1	1308 C1	1D00 D1	2002 B8	2020 C11	2405 A3	2808 C5	2D05 D4	2H10 G6	2U11 F8	3014 C7	3402 C1	3805 C5	3H07 E5	3U58 E7	5015 B7	5401 A2	5D01 D3	5U07 E6	5U40 F7	6B91 G10	7006 C8	9003 B4	9082 C4	9097 D6	9H12 F5	9U06 E3	9U55 D8	9U67 A7	9U78 E9	9U88 F3
1001 A2	1309 B11	1D02 F2	2003 B7	2022 B11	2406 B3	2809 D4	2D07 E4	2H15 E5	2U12 G9	3015 C7	3403 C1	3807 B5	3H10 E5	5001 C7	5016 B7	5402 C3	5D02 F3	5U08 E6	5U41 G9	6B93 G11	7805 B5	9004 B11	9088 A10	9098 C4	9H13 E6	9U07 E3	9U56 F10	9U68 B7	9U79 E8	9U90 E2
1009 B10	1320 E11	1D50 E4	2004 A8	2025 A10	2407 B4	2810 D5	2D08 E4	2H16 E6	2U13 G8	3017 D8	3404 B3	3810 B5	3U00 D5	5002 B9	5017 A5	5403 D2	5D03 F2	5U09 E8	6014 A11	6H07 G5	7806 D5	9005 D2	9089 D2	9099 B3	9H14 E6	9U08 E2	9U58 E7	9U69 A8	9U80 E7	9U91 E2
1010 C10	1400 B1	1M02 F11	2005 A8	2033 A11	2408 C3	2815 B4	2D09 E2	2H17 E6	2U14 D8	3018 D7	3405 B3	3D00 D1	3U14 F7	5004 C7	5025 B10	5404 B3	5D05 E2	5U10 E8	6021 B10	6H08 E5	7H05 F6	9006 B2	9090 A10	9808 C6	9H15 F6	9U09 G8	9U59 E5	9U70 A8	9U81 E7	
1011 C4	1401 A5	1U01 D3	2010 A8	2038 B10	2409 B1	2816 B6	2D10 E4	2U00 E9	2U17 F7	3026 A10	3406 D5	3D04 F2	3U15 G7	5005 D7	5026 B10	5405 A2	5DO4 E3	5U13 G9	6044 D10	6H09 E5	7H06 G6	9007 B3	9091 A9	9811 C6	9H16 G5	9U10 F4	9U60 D4	9U71 B7	9U82 F7	
1303 E11	1402 A3	1U07 F10	2011 C7	2400 B1	2410 B4	2817 A6	2H03 F5	2U02 E8	2U22 F11	3050 A7	3407 D6	3D50 G2	3U17 G8	5007 A6	5027 C9	5804 C5	5H04 F5	5U15 E7	6078 B7	6U21 E10	7U01 E7	9008 A1	9092 B8	9812 C5	9H17 C1	9U50 E3	9U61 D5	9U72 B7	9U83 E7	
1304 B11	1403 A3	1U09 E10	2012 D9	2401 B4	2503 A5	2B92 F10	2H04 F5	2U03 E7	2U25 D11	3053 A7	3450 C2	3D51 G4	3U18 G8	5008 A6	5028 C10	5B91 F11	5U01 F7	5U16 E7	6506 B4	6U78 E7	7U02 D9	9009 A5	9093 A8	9813 C6	9U01 E1	9U51 E9	9U62 D5	9U73 B7	9U84 G4	
1305 A4	1450 B4	1U10 G10	2013 C7	2402 A2	2803 C4	2B94 F10	2H06 F5	2U04 D7	2U33 D11	3058 A7	3451 C3	3H00 E5	3U26 D10	5009 B8	5040 C7	5B92 F11	5U02 F9	5U17 D6	6807 C4	7001 A7	7U05 G7	9010 B11	9094 B7	9814 B6	9U03 E4	9U52 E5	9U63 B11	9U74 D7	9U85 E6	
1306 A5	1B06 A4	1U11 G4	2014 A9	2403 A3	2804 C5	2D00 E2	2H08 F5	2U05 D7	2U38 E10	3400 B2	3800 B5	3H03 F6	3U50 E7	5010 B7	5041 D9	5B93 F11	5U04 F7	5U25 E10	6808 B5	7002 A9	7U06 G9	9011 C3	9095 B9	9H08 F6	9U04 E8	9U53 F5	9U65 B11	9U76 E8	9U86 B9	
1307 D5	1C05 D4	2000 A9	2017 B7	2404 A3	2806 B5	2D01 E4	2H09 G5	2U10 D8	3000 A6	3401 C1	3803 C5	3H05 G4	3U53 D6	5013 D8	5400 A1	5D00 D1	5U05 G8	5U26 E10	6809 B5	7005 D7	9001 A1	9080 A8	9096 C7	9H11 F6	9U05 G3	9U54 G7	9U66 D10	9U77 E9	9U87 B9	



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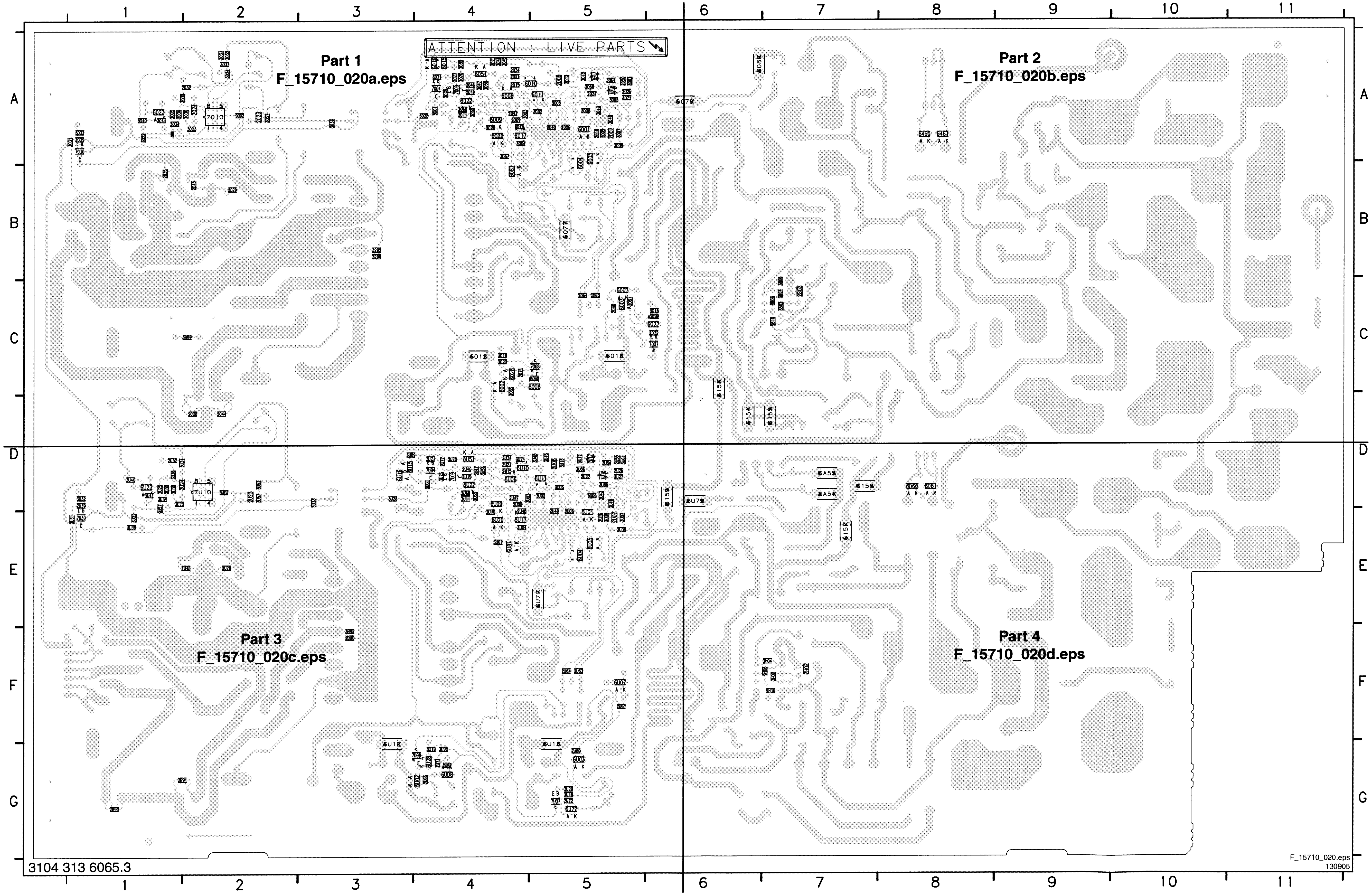
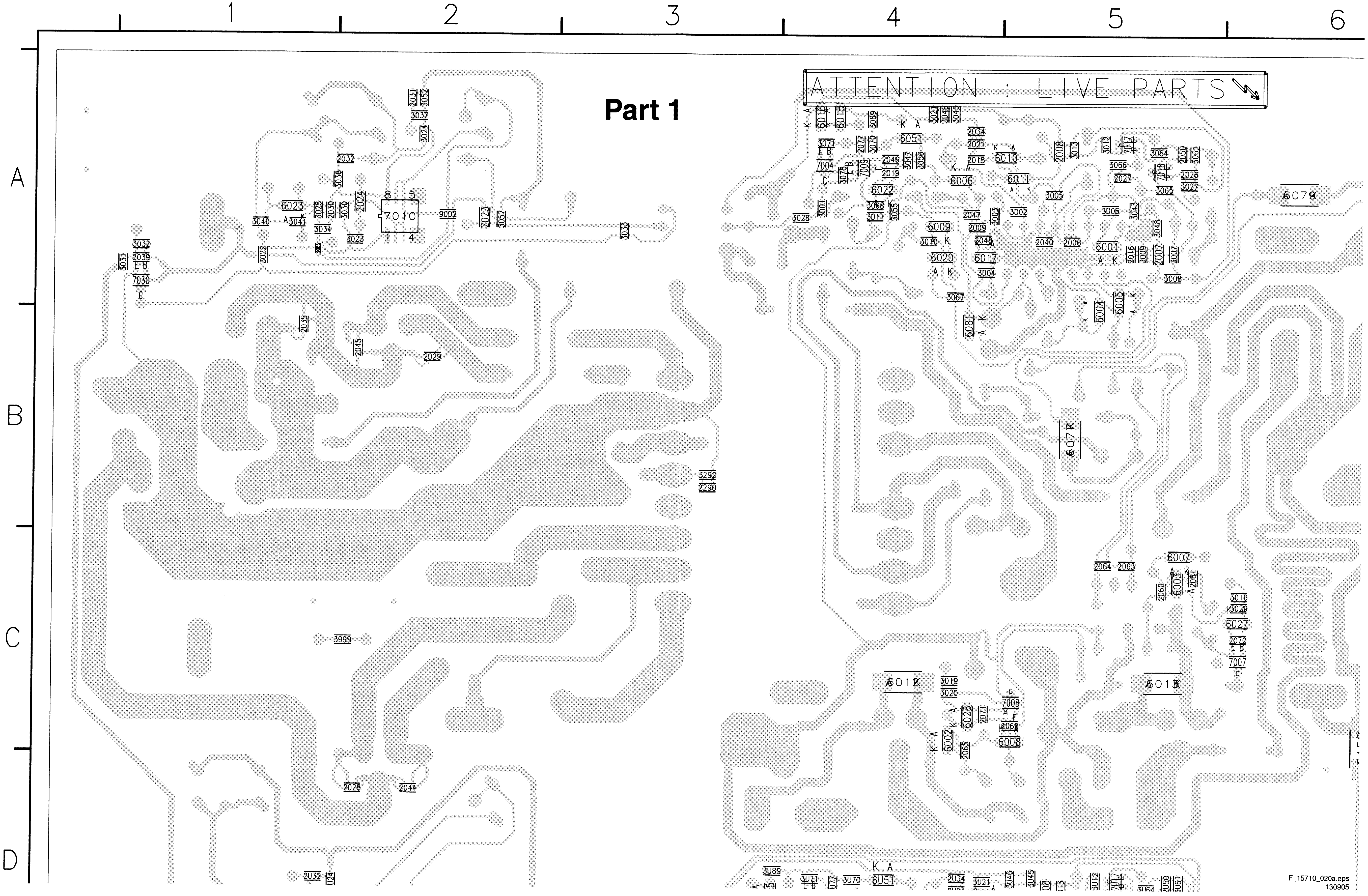
Layout LCD Supply (42” - v3) (Overview Bottom Side)

2006 A5	2024 A2	2035 B1	2060 C5	2290 B3	2U09 D4	2U29 E2	2U48 E4	2U72 G5	3008 A5	3021 A4	3031 A1	3045 A4	3064 A5	3292 B3	3U02 D5	3U11 D4	3U24 D1	3U34 D1	3U48 D5	3U67 E4	6004 B5	6013 C5	6051 A4	6158 C6	6U02 G3	6U11 D5	6U27 G5	7009 A4	7U10 D2	9H10 F7
2007 A5	2026 A5	2039 A1	2061 C5	2802 C7	2U15 D4	2U30 D1	2U50 D5	2U77 D4	3009 A5	3022 A1	3032 A1	3046 A4	3065 A5	3802 C7	3U03 D4	3U12 D5	3U25 D1	3U38 D1	3U52 D2	3U68 D4	6005 A5	6015 A4	6077 B5	6159 D6	6U03 G5	6U12 F3	6U28 G4	7010 A2	7U17 D5	9U02 D2
2008 A5	2027 A5	2040 A5	2062 C5	2B90 F3	2U16 E5	2U32 D1	2U60 G5	3001 A4	3010 A4	3023 A2	3033 A3	3047 A4	3066 A5	3804 C7	3U04 E4	3U13 D5	3U27 D5	3U39 E1	3U55 D4	3U70 D4	6006 A4	6016 A4	6079 A6	6460 A8	6U04 E5	6U13 F5	6U51 D4	7017 A5	7U18 D5	9U57 D1
2009 A4	2028 D2	2044 D2	2063 C5	2B91 G1	2U19 D4	2U34 D4	2U61 F5	3002 A5	3011 A4	3024 A2	3034 A1	3048 A5	3067 A4	3806 C7	3U05 D5	3U16 G5	3U28 D3	3U40 D1	3U56 D4	3U71 D4	6007 C5	6017 A4	6080 A6	6461 A8	6U05 E5	6U15 D4	6U77 E4	7018 A5	7U30 E1	
2015 A4	2029 B2	2045 B2	2064 C5	2B93 G1	2U21 D4	2U39 D1	2U62 G4	3003 A4	3012 A5	3025 A1	3037 A2	3052 A2	3068 A4	3999 C2	3U06 D5	3U19 G4	3U29 G5	3U41 D1	3U57 D2	3U75 D4	6008 C5	6020 A4	6081 B4	6A54 D7	6U06 D4	6U16 D3	6U79 D6	7030 A1	9002 A2	
2016 A5	2030 A1	2046 A4	2065 C4	2H02 F7	2U23 D2	2U40 E5	2U63 F5	3004 A4	3013 A5	3027 A5	3038 A1	3055 A4	3070 A4	3B92 F3	3U07 E5	3U20 G4	3U30 D1	3U43 D5	3U61 D5	3U89 D3	6009 A4	6022 A4	6154 D6	6A55 D7	6U07 F5	6U17 E4	6U81 E4	7U04 D4	9085 A1	
2019 A4	2031 A2	2047 A4	2071 C4	2U06 E5	2U24 D1	2U45 E2	2U64 F5	3005 A5	3016 C6	3028 A4	3040 A1	3056 A4	3071 A4	3H02 F7	3U08 E5	3U21 D4	3U31 E1	3U45 D5	3U64 D5	6001 A5	6010 A5	6023 A1	6155 D6	6D60 D8	6U08 G4	6U20 E4	7004 A4	7U07 G5	9806 C7	
2021 A4	2032 A2	2048 A4	2072 C6	2U07 E5	2U26 D5	2U46 D4	2U65 G4	3006 A5	3019 C4	3029 C6	3041 A1	3057 A2	3075 A4	3H04 F7	3U09 E5	3U22 E1	3U32 D1	3U46 D5	3U65 D5	6002 C4	6011 A5	6027 C6	6156 D7	6D61 D8	6U09 D4	6U22 D4	7007 C6	7U08 G4	9810 C7	
2023 A2	2034 A4	2050 A5	2077 A4	2U08 D5	2U27 D5	2U47 D4	2U71 G4	3007 A5	3020 C4	3030 A2	3043 A5	3061 A5	3089 A4	3U01 D4	3U10 E4	3U23 D1	3U33 D3	3U47 D4	3U66 D5	6003 C5	6012 C4	6028 C4	6157 E7	6U01 D5	6U10 D4	6U23 D1	7008 C5	7U09 D4	9H06 F7	



Layout LCD Supply (42" - v3) (Part 1 Bottom Side)


1
2
3
4
5
6
A
B
C
D
Part 1
ATTENTION : LIVE PARTS
2031
3052
3037
3024
2032
3038
6023
3025
2036
3030
2024
7010
8
5
1
4
9002
2023
3057
3040
3041
3034
3023
3033
3032
2039
3031
7030
3022
2035
2045
2029
3292
2290
3999
2028
2044
2U32
3028
3001
3071
7004
3075
7009
2077
3070
3089
6016
6015
6051
3021
3046
3045
2046
2019
3047
3056
6022
3068
3011
3055
2034
2021
2015
6010
6006
6011
2008
3013
3012
7017
3064
2050
3061
3066
2027
3065
2026
3027
3005
3002
2047
2009
3003
6009
3010
2048
6020
6017
3004
3067
6081
2040
2006
6001
2016
3009
2007
3007
3006
3043
3048
3008
6004
6005
6079
6078
2064
2063
6007
2060
6003
2061
3016
3029
6027
2072
7007
6012
3019
3020
6028
2071
7008
2062
6008
6002
2065
6013
3U89
3U71
3U70
6U51
2U34
3U21
3U46
3U45
3U12
2U50
3U61
F_15710_020a.eps
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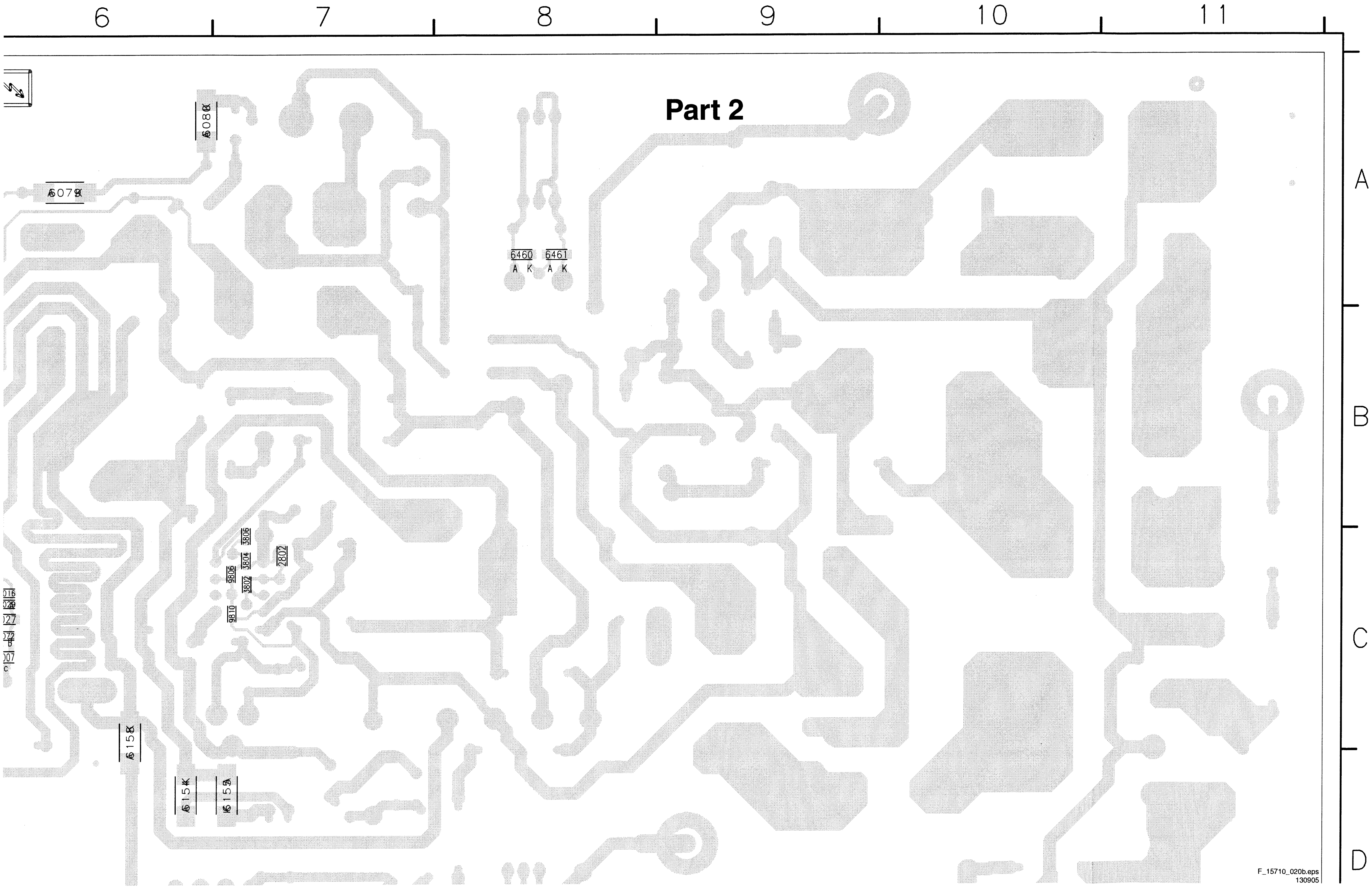
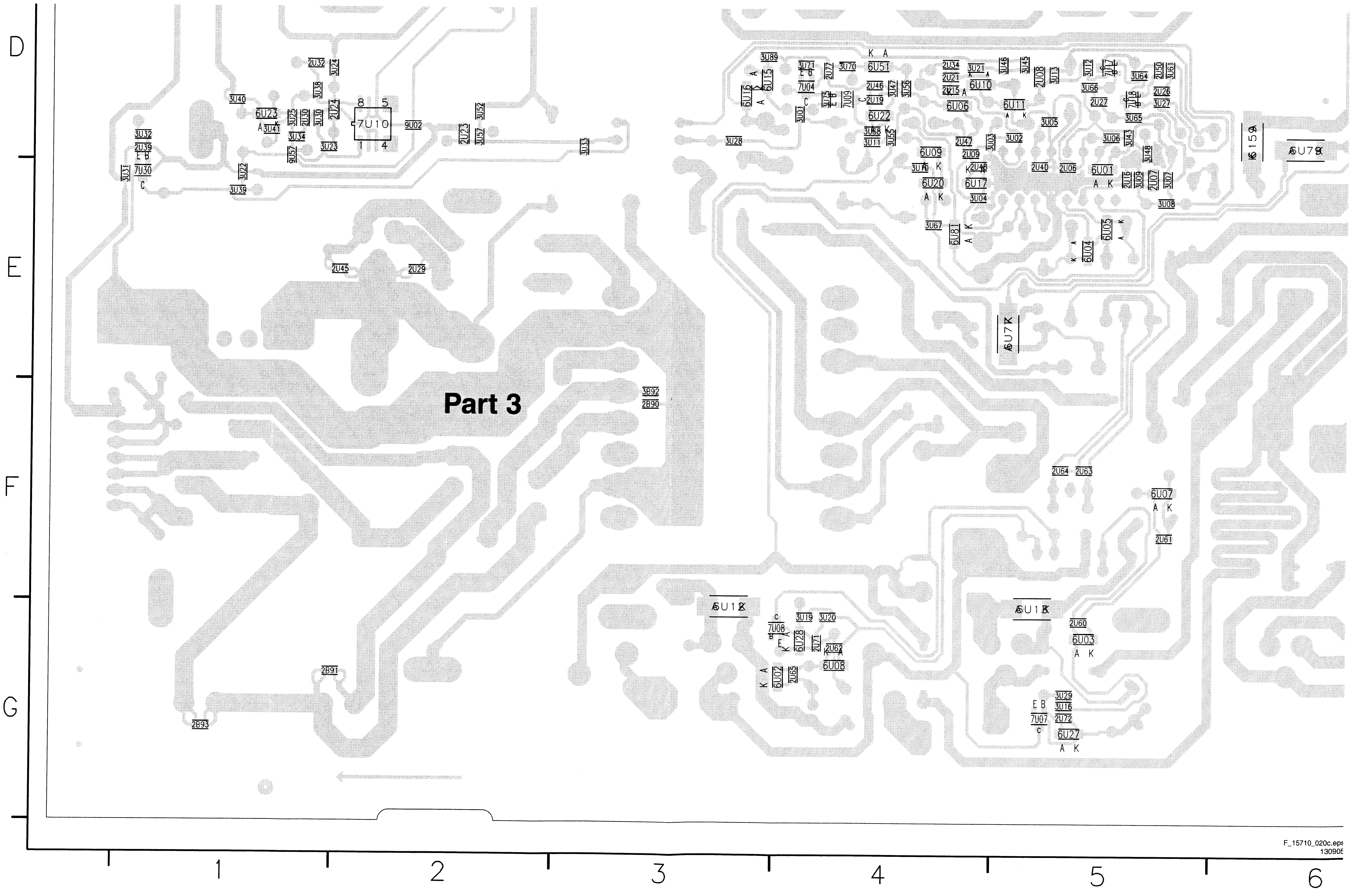
Layout LCD Supply (42" - v3) (Part 2 Bottom Side)


6
7
8
9
10
11
A
B
C
D
Part 2
6080
6079
6460
6461
A K
A K
3806
3804
2802
9606
3802
9810
6158
6151
6152
F_15710_020b.eps
130905

Layout LCD Supply (42" - v3) (Part 3 Bottom Side)


D
E
F
G
1
2
3
4
5
6
Part 3
7U10
8
5
1
4
2U32
3U24
3U38
3U40
6U23
3U41
3U25
2U30
3U30
2U24
9U02
3U52
2U23
3U57
3U33
3U32
2U39
7U30
3U31
3U22
3U39
3U34
9U52
3U23
2U45
2U29
3B92
2B90
2B91
2B93
3U89
6U16
6U15
3U71
7U04
3U01
2U77
3U75
7U09
3U70
6U51
2U46
2U19
6U22
3U68
3U11
3U55
3U47
3U56
2U34
2U21
2U15
3U21
6U10
6U06
3U46
3U45
2U08
3U13
6U11
3U05
3U12
7U07
3U64
2U50
3U61
3U66
2U27
2U18
2U26
3U27
3U65
3U28
6U09
3U10
6U20
2U47
2U09
2U48
6U17
3U04
3U03
3U02
2U40
2U06
6U01
3U06
3U43
3U48
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2U07
3U07
3U08
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6U04
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6U07
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6U12
7U08
3U19
3U20
6U28
2U71
2U62
6U08
6U02
2U65
6U13
2U60
6U03
3U29
3U16
7U07
2U72
6U27

F_15710_020c.eps
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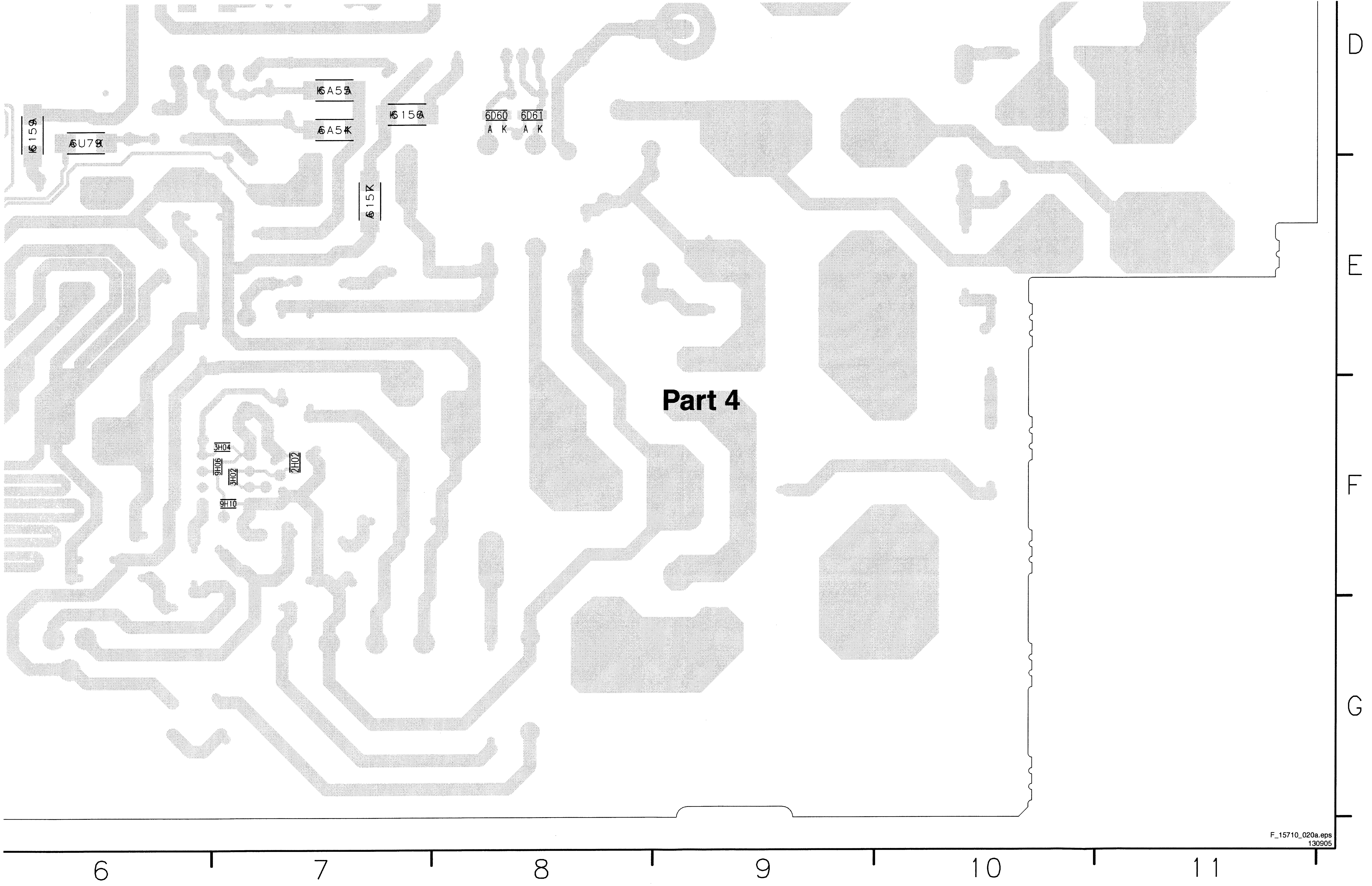
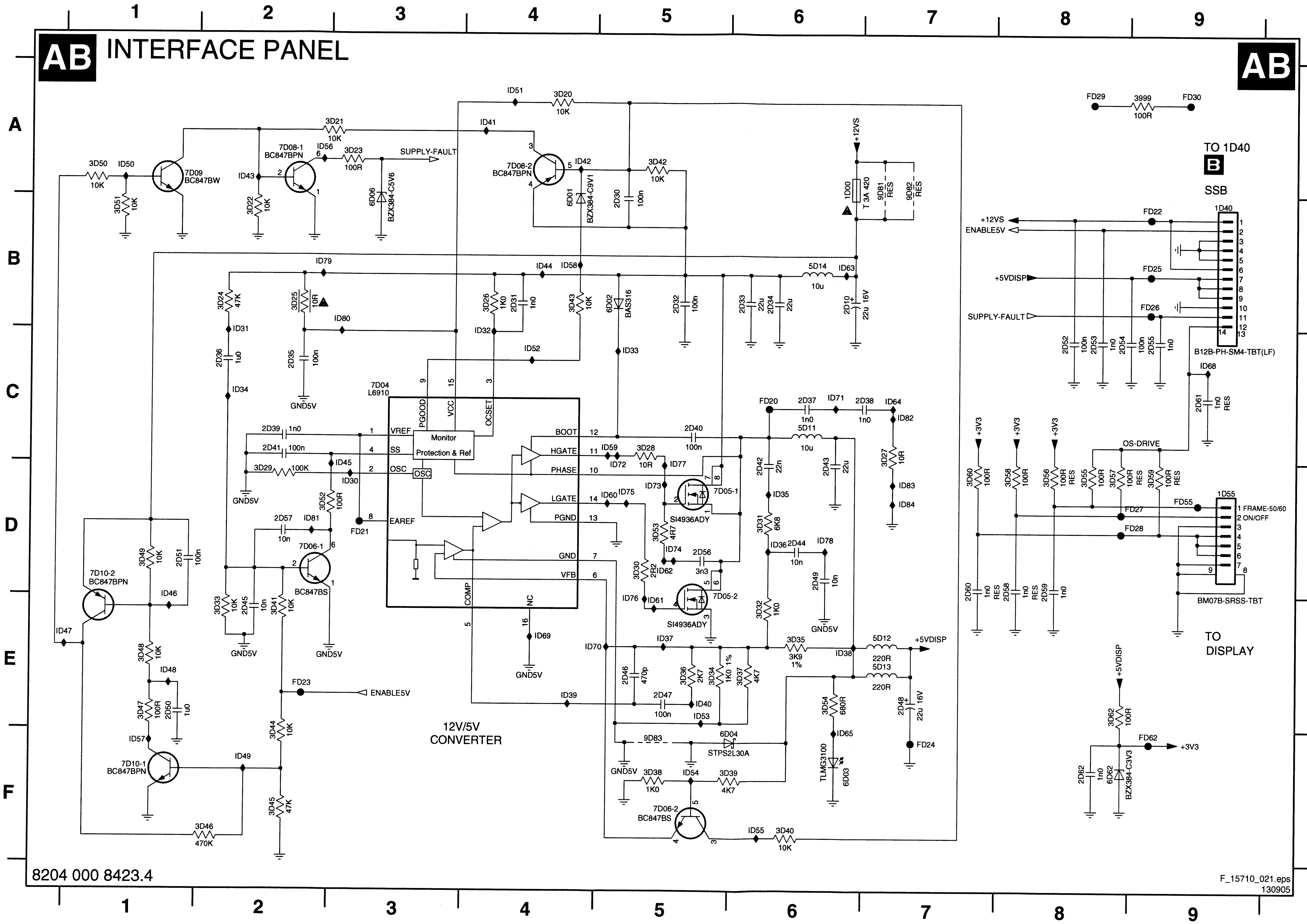
Layout LCD Supply (42" - v3) (Part 4 Bottom Side)


6159
6U79
6A53
6A54
6156
6157
6D60
A K
6D61
A K
3H04
9H06
3H02
2H02
9H10
Part 4
D
E
F
G
6
7
8
9
10
11
F_15710_020a.eps
130905

Interface Panel DC / DC


AB INTERFACE PANEL
AB
TO 1D40
B
SSB
12V/5V
CONVERTER
TO
DISPLAY
7D04
L6910
Monitor
Protection & Ref
VREF
SS
OSC
EAREF
PGOOD
VCC
OCSET
BOOT
HGATE
PHASE
LGATE
PGND
GND
VFB
COMP
NC
7D09
BC847BW
7D08-1
BC847BPN
7D08-2
BC847BPN
7D10-2
BC847BPN
7D10-1
BC847BPN
7D06-1
BC847BS
7D06-2
BC847BS
7D05-1
SI4936ADY
7D05-2
SI4936ADY
SUPPLY-FAULT
ENABLE5V
+12VS
+5VDISP
+3V3
OS-DRIVE
1 FRAME-50/60
2 ON/OFF
B12B-PH-SM4-TBT(LF)
BM07B-SRSS-TBT
6D06
BZX384-C5V6
6D01
BZX384-C9V1
6D02
BAS316
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TLMG3100
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1D00
T 3A 420
GND5V
8204 000 8423.4
F_15710_021.eps
130905
1
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A
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C
D
E
F

1D00	A6
1D40	B9
1D55	D9
2D10	B6
2D30	B5
2D31	B4
2D32	B5
2D33	B6
2D34	B6
2D35	C2
2D36	C2
2D37	C6
2D38	C7
2D39	C2
2D40	C5
2D41	C2
2D42	D6
2D43	D6
2D44	D6
2D45	E2
2D46	E5
2D47	E5
2D48	E7
2D49	D6
2D50	E1
2D51	D1
2D52	C8
2D53	C8
2D54	C8
2D55	C9
2D56	D5
2D57	D2
2D58	D8
2D59	D8
2D60	D7
2D61	C9
2D62	F8
3999	A9
3D20	A4
3D21	A3
3D22	B2
3D23	A3
3D24	B2
3D25	B2
3D26	B4
3D27	C7
3D28	C5
3D29	D2
3D30	D5
3D31	D6
3D32	E6
3D33	E2
3D34	E5
3D35	E6
3D36	E5
3D37	E6
3D38	F5
3D39	F6
3D40	F6
3D41	E2
3D42	A5
3D43	B4
3D44	F2
3D45	F2
3D46	F2
3D47	E1
3D48	E1
3D49	D1
3D50	A1
3D51	B1
3D52	D2
3D53	D5
3D54	E6
3D55	D8
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3D59	D9
3D60	D7
3D62	E8
5D11	C6
5D12	E7
5D13	E7
5D14	B6
6D01	B4
6D02	B5
6D03	F6
6D04	F6
6D06	B3
6D62	F8
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7D05-2	E5
7D06-1	D2
7D06-2	F5
7D08-1	A2
7D08-2	A4
7D09	A1
7D10-1	F1
7D10-2	D1
9D81	A7
9D82	A7
9D83	F5
FD20	C6
FD21	D3
FD22	B9
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FD28	D9
FD29	A8
FD30	A9
FD55	D9
FD62	F9
ID30	D3
ID31	C2
ID32	C4
ID33	C5
ID34	C2
ID35	D6
ID36	D6
ID37	E5
ID38	E6
ID39	E4
ID40	E5
ID41	A4
ID42	A4
ID43	A2
ID44	B4
ID45	D3
ID46	E1
ID47	E1
ID48	E1
ID49	F2
ID50	A1
ID51	A4
ID52	C4
ID53	E5
ID54	F5
ID55	F6
ID56	A2
ID57	F1
ID58	B4
ID59	C5
ID60	D5
ID61	E5
ID62	D5
ID63	B6
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ID65	F6
ID68	C9
ID69	E4
ID70	E4
ID71	C6
ID72	D5
ID73	D5
ID74	D5
ID75	D5
ID76	E5
ID77	D5
ID78	D6
ID79	B2
ID80	B3
ID81	D2
ID82	C7
ID83	D7
ID84	D7

Layout Interface Panel DC / DC

1D00 --
1D40 --
1D55 --
2D10 --
2D30 --
2D31 --
2D32 --
2D33 --
2D34 --
2D35 --
2D36 --
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6D04 --
6D06 --
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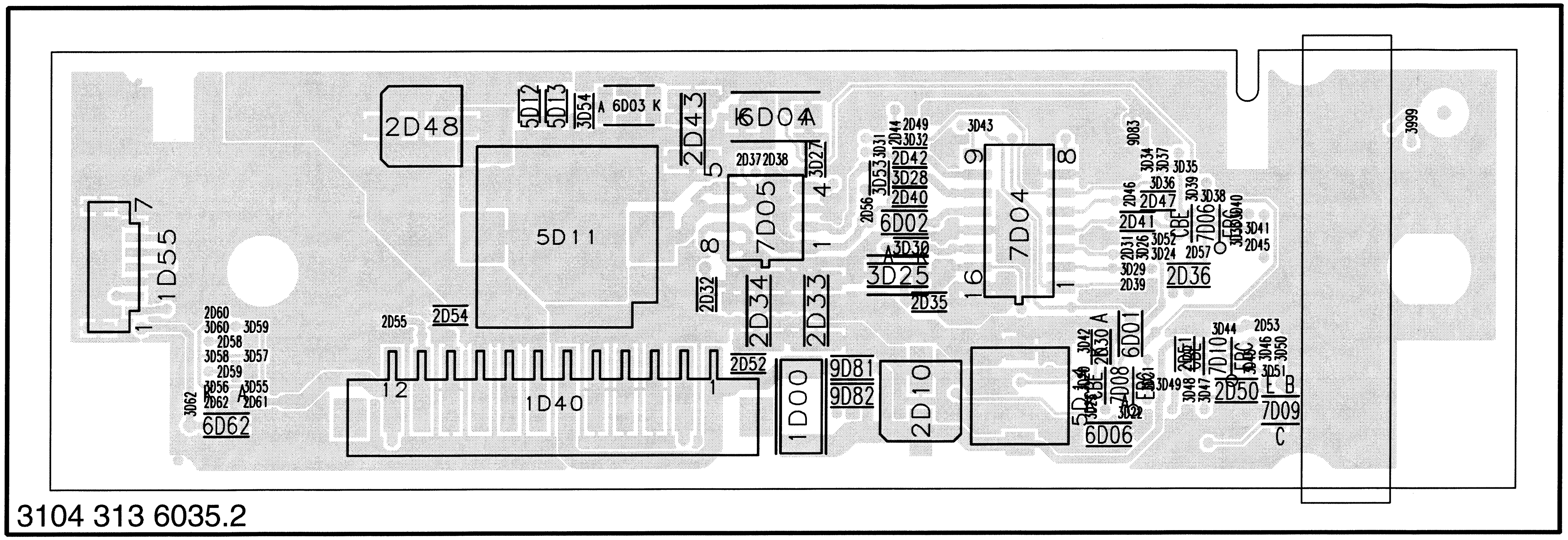
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6D02
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2D34
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2D52
1D00
9D81
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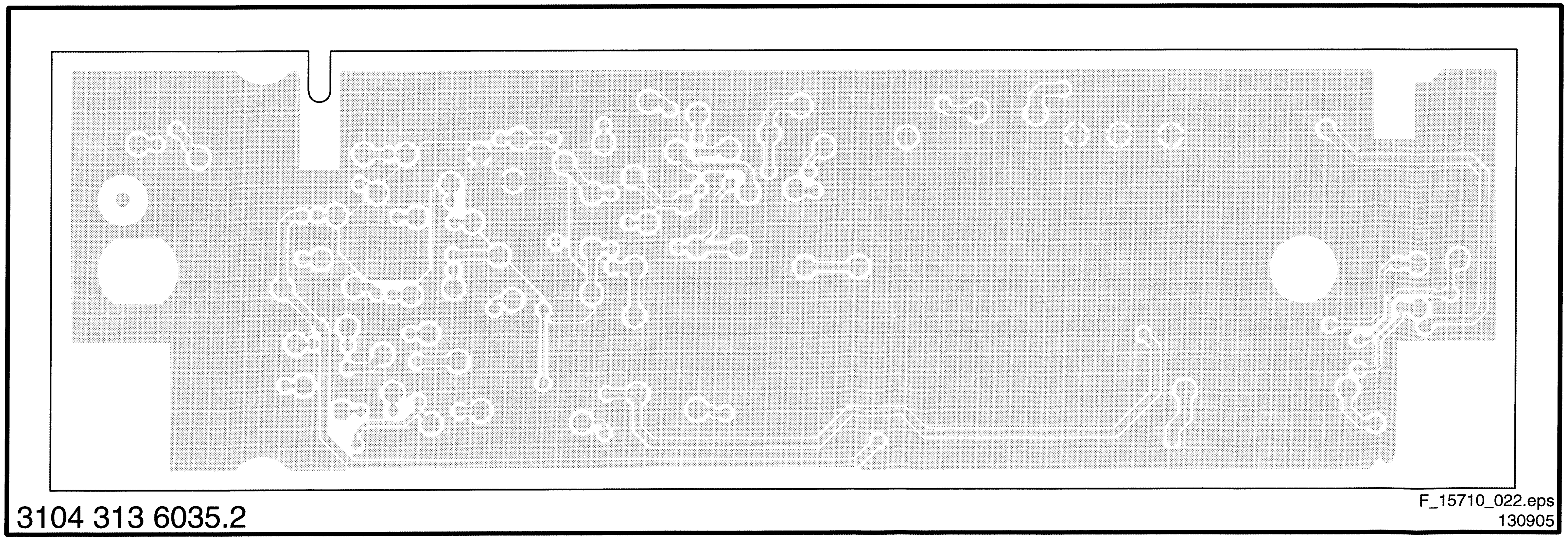
2D50
7D09
3104 313 6035.2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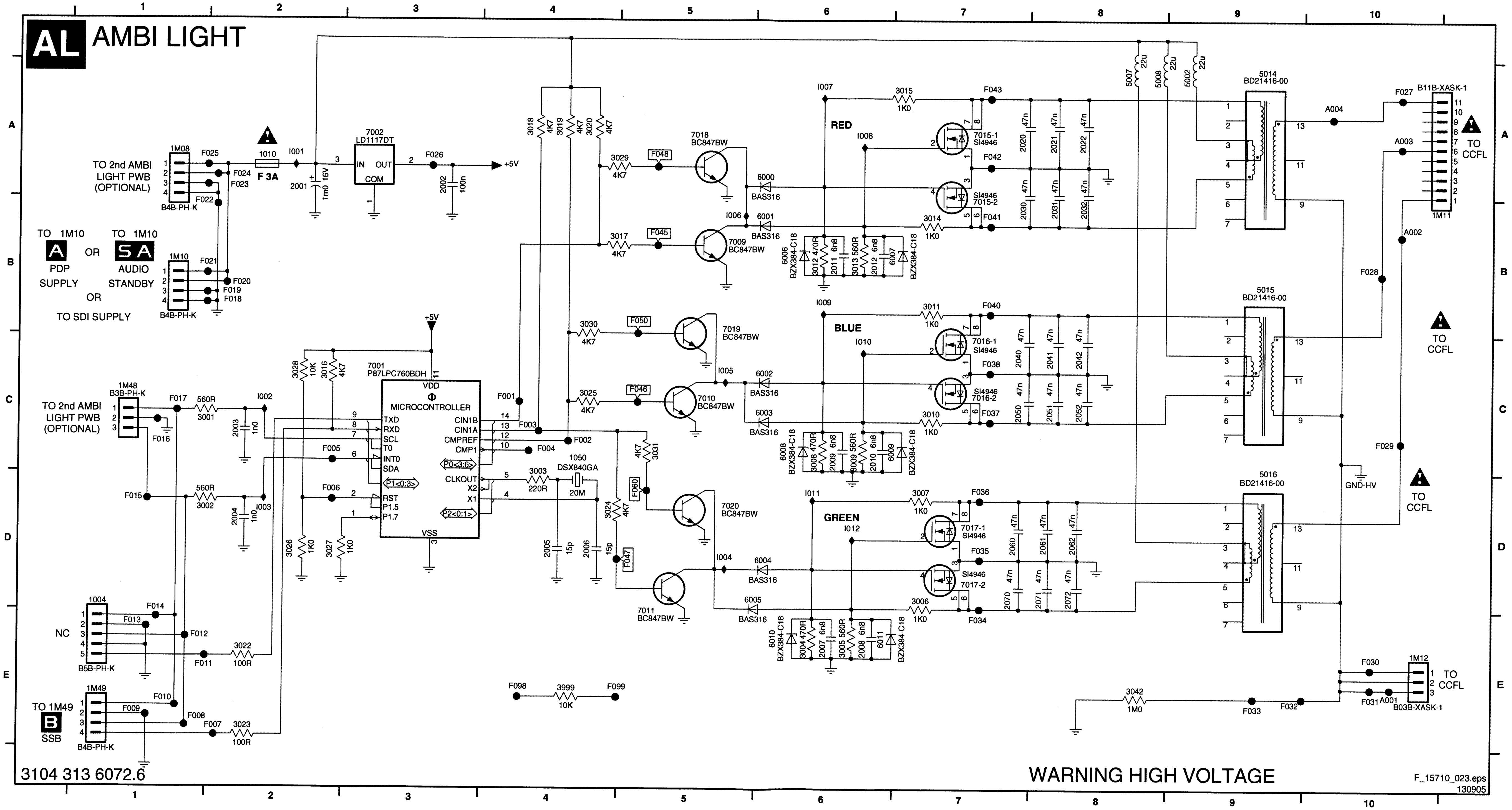
Ambi Light Panel

1004 D1	2001 A2	2010 C6	2040 C7	2070 D7	3007 D7	3016 C2	3026 D2	5007 A8	6004 D6	7002 A3	7017-2 D7	F002 C4	F011 E1	F020 B2	F029 C10	F038 C7	F050 B5	I006 B5
1010 A2	2002 A3	2011 B6	2041 C8	2071 D8	3008 C6	3017 B4	3027 D2	5008 A8	6005 D5	7009 B5	7018 A5	F003 C4	F012 E1	F021 B1	F030 E10	F040 B7	F060 D5	I007 A6
1050 C4	2003 C2	2012 B6	2042 C8	2072 D8	3009 C6	3018 A4	3028 C2	5014 A9	6006 B6	7010 C5	7019 B5	F004 C4	F013 E1	F022 B1	F031 E10	F041 B7	F098 E4	I008 A6
1M08 A1	2004 D2	2020 A7	2050 C7	3001 C1	3010 C7	3019 A4	3029 A4	5015 B9	6007 B6	7011 E5	7020 D5	F005 C2	F014 E1	F023 A2	F032 E9	F042 A7	F099 E4	I009 B6
1M10 B1	2005 D4	2021 A8	2051 C8	3002 D1	3011 B7	3020 A4	3030 B4	5016 C9	6008 C6	7015-1 A7	A001 E10	F006 D2	F015 D1	F024 A2	F033 E9	F043 A7	I001 A2	I010 C6
1M11 B10	2006 D4	2022 A8	2052 C8	3003 D4	3012 B6	3022 E2	3031 C5	6000 A6	6009 C6	7015-2 A7	A002 B10	F007 E2	F016 C1	F025 A1	F034 E7	F045 B5	I002 C2	I011 D6
1M12 E10	2007 E6	2030 B7	2060 D7	3004 E6	3013 B6	3023 E2	3042 E8	6001 B6	6010 E6	7016-1 C7	A003 A10	F008 E1	F017 C1	F026 A3	F035 D7	F046 C5	I003 D2	I012 D6
1M48 C1	2008 E6	2031 B8	2061 D8	3005 E6	3014 B7	3024 D4	3999 E4	6002 C6	6011 E6	7016-2 C7	A004 A10	F009 E1	F018 B2	F027 A10	F036 D7	F047 D5	I004 D5	
1M49 E1	2009 C6	2032 B8	2062 D8	3006 D7	3015 A7	3025 C4	5002 A9	6003 C6	7001 C3	7017-1 D7	F001 C4	F010 E1	F019 B2	F028 B10	F037 C7	F048 A5	I005 C5	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AMBI LIGHT
1 2 3 4 5 6 7 8 9 10
A B C D E
TO 2nd AMBI LIGHT PWB (OPTIONAL)
1M08
B4B-PH-K
F025
F024
F023
F022
1010
F 3A
I001
2001
1n0 16V
7002
LD1117DT
IN OUT
COM
F026
2002
100n
+5V
TO 1M10
A
PDP SUPPLY
OR
TO 1M10
S A
AUDIO STANDBY
OR
TO SDI SUPPLY
1M10
F021
F020
F019
F018
1M48
B3B-PH-K
F017
560R
3001
I002
2003
1n0
F016
F015
560R
3002
2004
1n0
I003
F005
F006
3028
10K
3016
4K7
7001
P87LPC760BDH
VDD
MICROCONTROLLER
TXD
RXD
SCL
T0
INT0
SDA
P1<0:3>
RST
P1.5
P1.7
CIN1B
CIN1A
CMPREF
CMP1
P0<3:6>
CLKOUT
X2
X1
P2<0:1>
VSS
3026
1K0
3027
1K0
F001
F003
F004
F002
3003
220R
1050
DSX840GA
20M
2005
15p
2006
15p
1004
NC
B5B-PH-K
F014
F013
F012
F011
3022
100R
1M49
TO 1M49
B
SSB
B4B-PH-K
F010
F009
F008
F007
3023
100R
F098
3999
10K
F099
3018 4K7
3019 4K7
3020 4K7
3029
4K7
F048
7018
BC847BW
3017
4K7
F045
7009
BC847BW
3030
4K7
F050
7019
BC847BW
3025
4K7
F046
7010
BC847BW
3031
4K7
F060
7020
BC847BW
3024
4K7
F047
7011
BC847BW
6000
BAS316
I006
6001
BAS316
I005
6002
BAS316
6003
BAS316
I004
6004
BAS316
6005
BAS316
I007
3015
1K0
F043
RED
I008
7015-1
SI4946
F042
SI4946
7015-2
F041
3014
1K0
2020 47n
2021 47n
2022 47n
2030 47n
2031 47n
2032 47n
6006 BZX384-C18
3012 470R
2011 6n8
3013 560R
2012 6n8
6007 BZX384-C18
I009
3011
1K0
F040
BLUE
I010
7016-1
SI4946
F038
SI4946
7016-2
F037
3010
1K0
2040 47n
2041 47n
2042 47n
2050 47n
2051 47n
2052 47n
6008 BZX384-C18
3008 470R
2009 6n8
3009 560R
2010 6n8
6009 BZX384-C18
I011
3007
1K0
F036
GREEN
I012
7017-1
SI4946
F035
SI4946
7017-2
3006
1K0
F034
2060 47n
2061 47n
2062 47n
2070 47n
2071 47n
2072 47n
6010 BZX384-C18
3004 470R
2007 6n8
3005 560R
2008 6n8
6011 BZX384-C18
5007 22u
5008 22u
5002 22u
5014
BD21416-00
5015
BD21416-00
5016
BD21416-00
1 2 3 4 5 6 7
13 11 9
A004
A003
F027
B11B-XASK-1
1M11
TO CCFL
A002
F028
TO CCFL
F029
TO CCFL
GND-HV
F030
1M12
TO CCFL
F031
A001
B03B-XASK-1
3042
1M0
F033
F032
3104 313 6072.6
WARNING HIGH VOLTAGE
F_15710_023.eps
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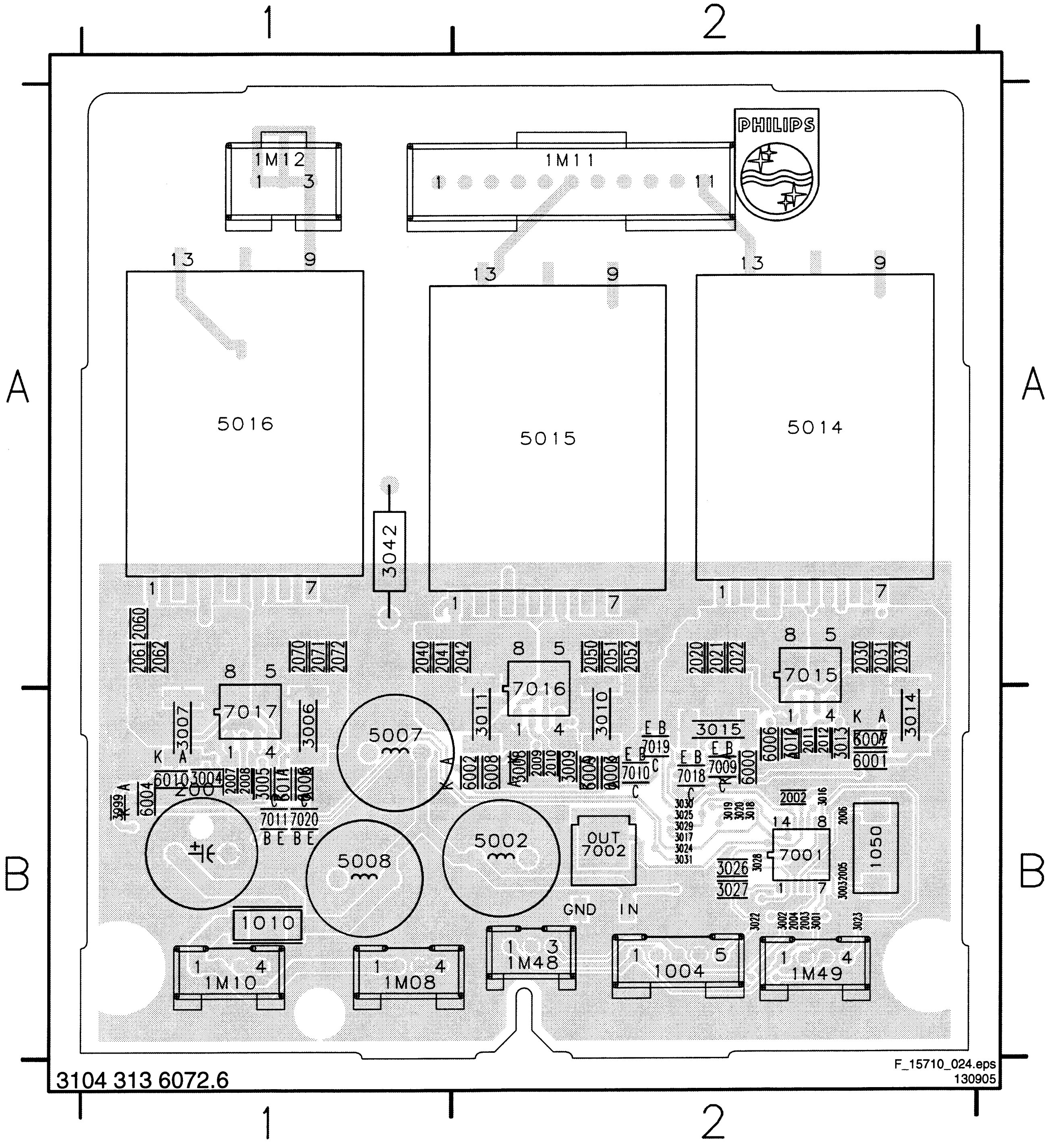
Layout Ambi Light Panel (Top Side)

1004	B2	1M48	B2	2006	B2	2020	A2	2041	A1	2062	A1	3004	B1	3011	B2	3018	B2	3026	B2	3999	B1	6000	B2	6007	B2	7009	B2	7019	B2
1010	B1	1M49	B2	2007	B1	2021	A2	2042	A2	2070	A1	3005	B1	3012	B2	3019	B2	3027	B2	5002	B2	6001	B2	6008	B2	7010	B2	7020	B1
1050	B2	2001	B1	2008	B1	2022	A2	2050	A2	2071	A1	3006	B1	3013	B2	3020	B2	3028	B2	5007	B1	6002	B2	6009	B2	7011	B1		
1M08	B1	2002	B2	2009	B2	2030	A2	2051	A2	2072	A1	3007	B1	3014	B2	3022	B2	3029	B2	5008	B1	6003	B2	6010	B1	7015	B2		
1M10	B1	2003	B2	2010	B2	2031	A2	2052	A2	3001	B2	3008	B2	3015	B2	3023	B2	3030	B2	5014	A2	6004	B1	6011	B1	7016	B2		
1M11	A2	2004	B2	2011	B2	2032	A2	2060	A1	3002	B2	3009	B2	3016	B2	3024	B2	3031	B2	5015	A1	6005	B1	7001	B2	7017	B1		
1M12	A1	2005	B2	2012	B2	2040	A1	2061	A1	3003	B2	3010	B2	3017	B2	3025	B2	3042	A1	5016	A1	6006	B2	7002	B2	7018	B2		


1
2
A
B
1M12
1M11
PHILIPS
13
9
1
7
5016
5015
5014
3042
7017
7016
7015
5007
5008
5002
OUT 7002
7001
1050
1010
GND
IN
1M10
1M08
1M48
1004
1M49
3104 313 6072.6
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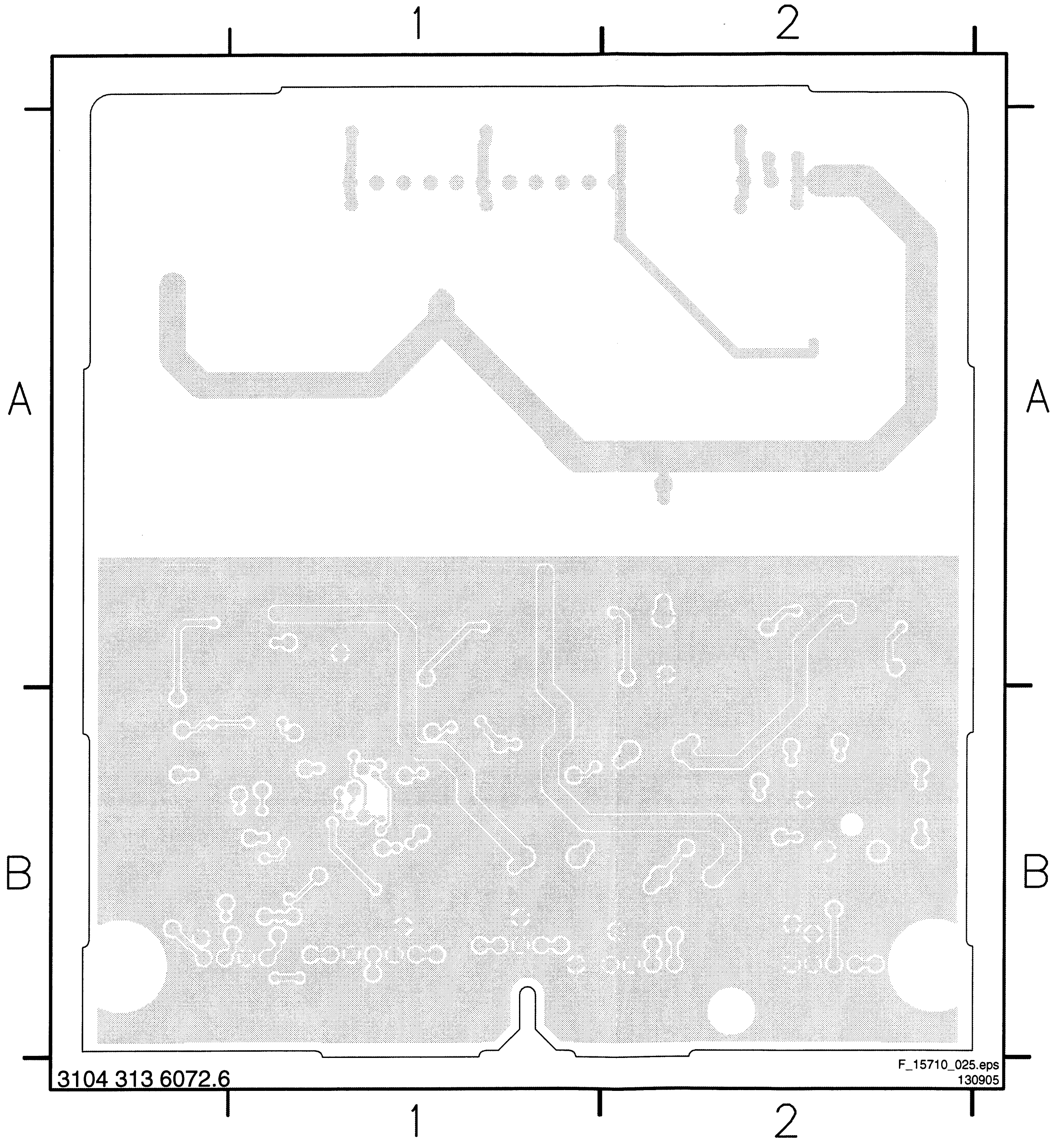
130905

Layout Ambi Light Panel (Bottom Side)


1
2
A
B
3104 313 6072.6
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130905

SSB: DC / DC

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1U04 A12
2U01 C2
2U02 C4
2U03 C1
2U04 C1
2U05 C1
2U06 C3
2U07 E4
2U08 E3
2U09 C6
2U10 C7
2U11 C7
2U12 E8
2U13 E8
2U14 C5
2U15 C5
2U16 C12
2U17 B13
2U18 C10
2U19 C10
2U20 C8
2U21 E13
2U22 C1
2U23 C5
2U24 C10
2U25 E1
2U26 E5
2U27 E10
2U28 C13
2U29 C10
2U30 E13
2U31 C4
2U32 C4
2U33 C8
2U34 C13
2U35 C13
2U36 C8
2U37 D4
2U38 D9
2U39 D14
2U40 G8
2U41 G8
2U42 B12
2U43 D14
2U44 E9
2U45 D4
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2U47 H8
2U48 F7
2U49 G7
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2U53 D8
2U54 D14
2U55 D4
2U56 D9
2U57 D14
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2U59 D15
2U60 F5
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2U63 B7
2U71 B15
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2U73 D5
2U74 C5
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2U83 G12
2U84 H14
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2U86 D13
2U87 D4
2U88 D5
2U89 D9
2U90 E14
2U91 F10
2U92 H10
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3U03 A3
3U04 E14
3U05 E4
3U06 E4
3U07 C1
3U08 C6
3U09 C7
3U10 E8
3U11 E9
3U12 E4
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6U20 H13
6U21 H13
6U22 H1
6U23 H2
6U24 H2
6U25 H7
6UB1 H3
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7U01-2 E4
7U02-1 D8
7U02-2 D8
7U03-1 D13
7U03-2 D13
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7U05 C6
7U06 C11
7U07 E13
7U08-1 D5
7U08-2 F7
7U09-1 D10
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7U11-2 A4
7U13-1 A7
7U13-2 A8
7U14-1 B14
7U14-2 B15
7U15 A14
7U16 B13
7U17 H8
7U18 H9
7U19 G10
7U20-1 B1
7U20-2 A3
7U21 H12
7U22 H14
7U23 H6
7UB1-1 H4
7UB1-2 H5
9U01 F3
9U02 F8
9U03 F14
9U04 A13
9U05 A13
9U06 G10
9U07 B8
9U08 A8
9U09 G9
9U10 G9
AU01 D1
AU02 D5
AU03 D10
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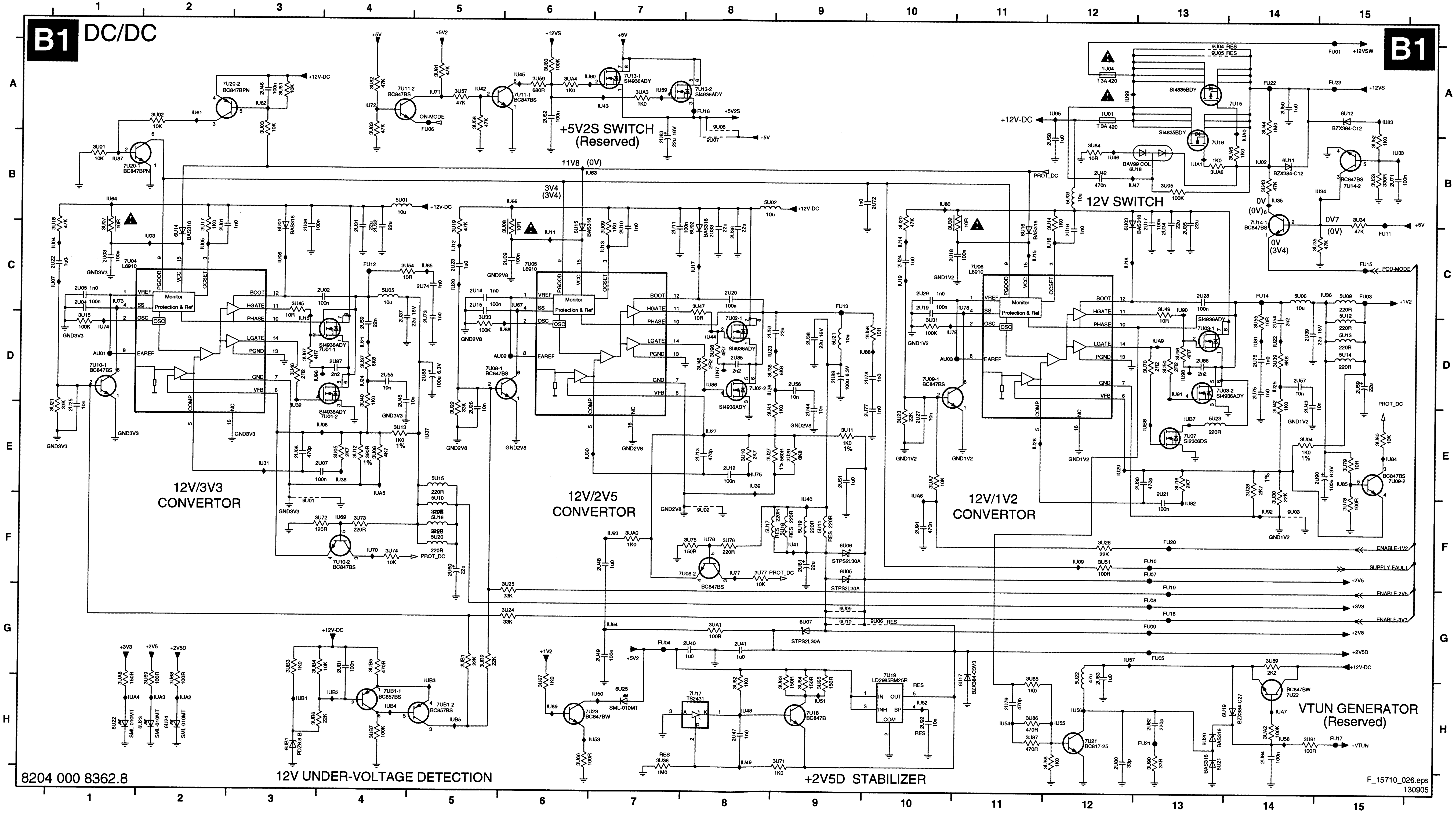
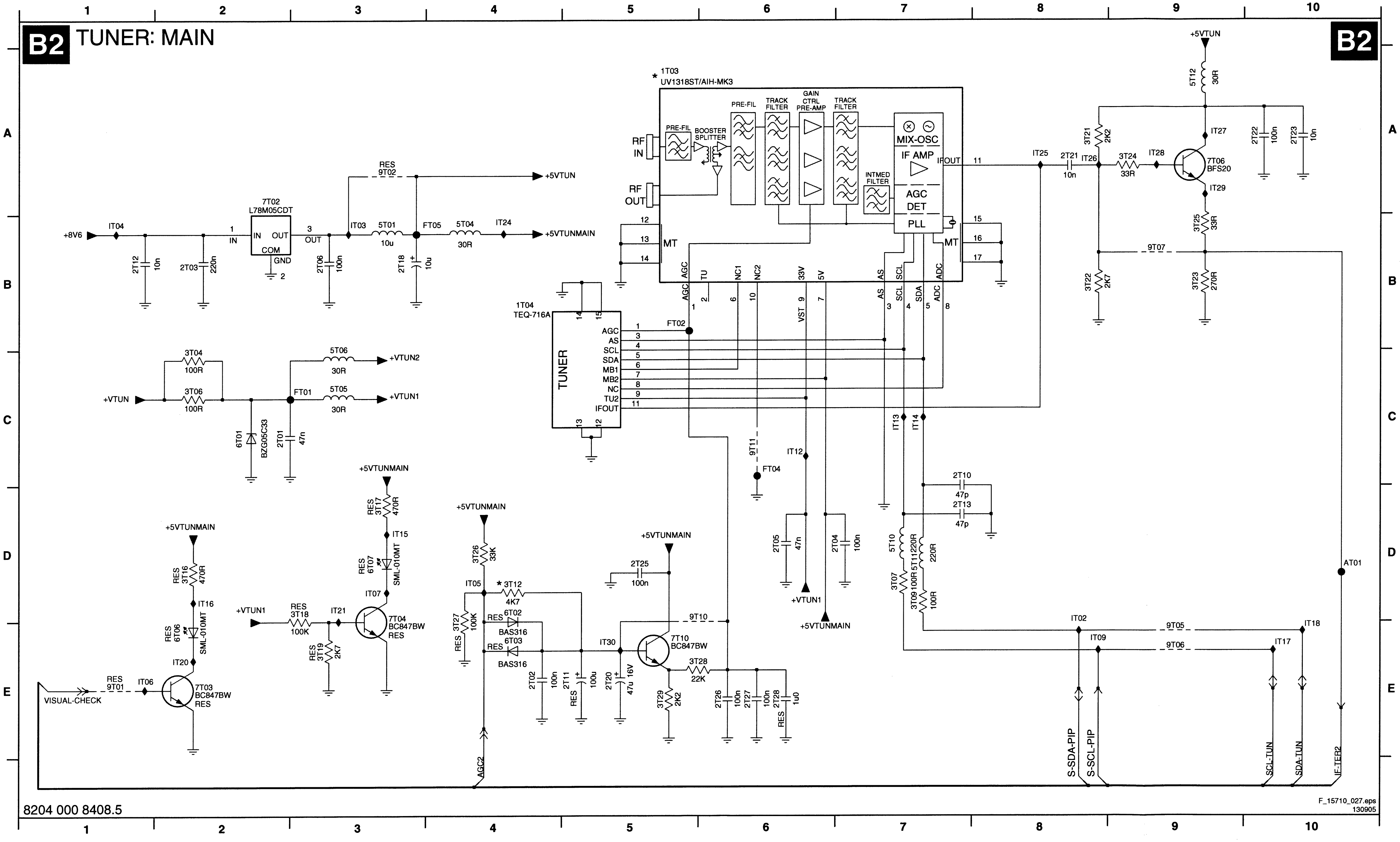
FU03 C15
FU04 G7
FU05 G13
FU06 A5
FU07 F13
FU08 G13
FU09 G13
FU10 F13
FU11 C15
FU12 C4
FU13 C9
FU14 C14
FU15 C15
FU16 A8
FU17 H15
FU18 G13
FU19 F13
FU20 F13
FU21 H13
FU22 A14
FU23 A15
IU02 B14
IU03 C2
IU04 C1
IU05 C2
IU06 C3
IU07 C1
IU08 E4
IU09 F12
IU10 D3
IU11 C6
IU12 C5
IU13 C7
IU14 C10
IU15 C11
IU16 C12
IU17 C8
IU18 C12
IU19 C10
IU20 C5
IU21 D4
IU22 D14
IU23 D8
IU24 D4
IU25 D14
IU26 D8
IU27 E8
IU28 E11
IU29 E12
IU30 E6
IU31 E3
IU32 E3
IU33 B15
IU34 B15
IU35 B14
IU36 C15
IU37 E5
IU38 E4
IU39 E8
IU40 F9
IU41 F9
IU42 A5
IU43 A7
IU44 D8
IU45 A6
IU46 B12
IU47 B12
IU48 H8
IU49 H8
IU50 H7
IU51 H9
IU52 H10
IU53 H7
IU54 H11
IU55 H12
IU56 H12
IU57 G12
IU58 H14
IU59 A7
IU60 A6
IU61 A2
IU62 A3
IU63 B6
IU64 B1
IU65 C5
IU66 B6
IU67 C6
IU68 D6
IU69 F4
IU70 F4
IU71 A5
IU72 A4
IU73 C1
IU74 D1
IU75 E8
IU76 F8
IU77 F8
IU78 C11
IU79 D10
IU80 B10
IU81 D14
IU82 F13
IU83 A15
IU84 E15
IU85 E15
IU86 D8
IU87 B1
IU88 D10
IU89 H6
IU90 C13
IU91 D13
IU92 F14
IU93 F7
IU94 G7
IU95 A12
IU96 D3
IU97 D8
IU98 D13
IU99 A12
IUA0 A14
IUA1 B13
IUA2 H2
IUA3 H2
IUA4 H1
IUA5 E4
IUA6 E10
IUA7 H14
IUA9 D13
IUB1 H3
IUB2 H4
IUB3 H5
IUB4 H4
IUB5 H5
IUB7 E13
IUB8 E13


B1
DC/DC
+5V2S SWITCH
(Reserved)
11V8 (0V)
3V4
(3V4)
12V SWITCH
PROT_DC
+12V-DC
+12VS
+12VSW
+5V
+5V2
ON-MODE
POD-MODE
Monitor
Protection & Ref
VREF
SS
OSC
EAREF
PGOOD
VCC
OCSET
BOOT
HGATE
PHASE
LGATE
PGND
GND
VFB
COMP
NC
SI4936ADY
SI4835BDY
BC847BS
BC847BPN
BC857BS
BC847BW
BC817-25
SI2306DS
L6910
BAS316
BAV99 COL
BZX384-C12
STPS2L30A
LD2985BM25R
TS2431
SML-010MT
PDZ6.8-B
T3A 420
12V/3V3
CONVERTOR
12V/2V5
CONVERTOR
12V/1V2
CONVERTOR
+1V2
ENABLE-1V2
SUPPLY-FAULT
+2V5
ENABLE-2V5
+3V3
ENABLE-3V3
+2V8
+2V5D
+VTUN
VTUN GENERATOR
(Reserved)
12V UNDER-VOLTAGE DETECTION
+2V5D STABILIZER
GND3V3
GND2V8
GND1V2
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
A B C D E F G H
8204 000 8362.8
F_15710_026.eps
130905

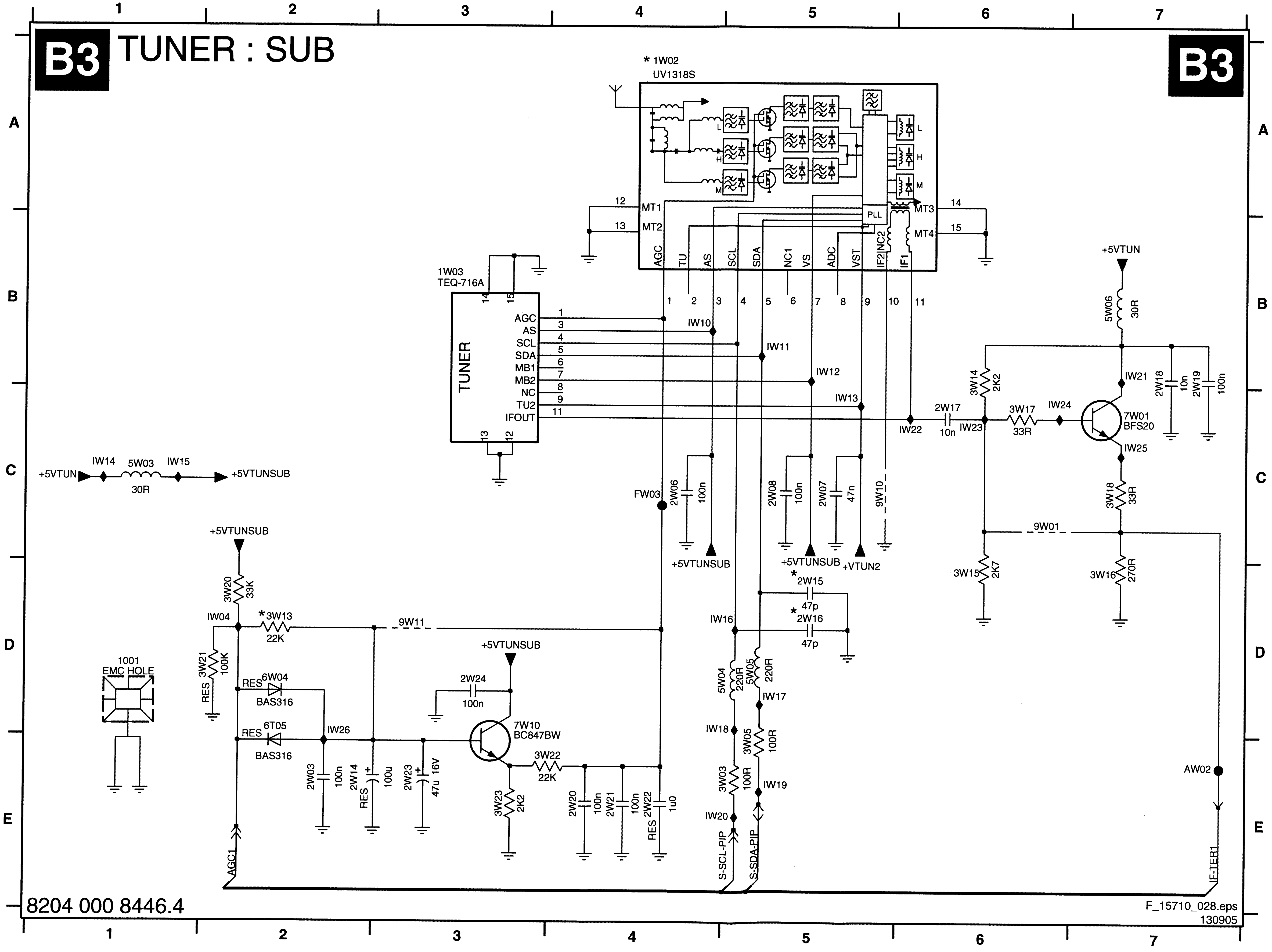
SSB: Tuner: Main

1T03 A5
1T04 B4
2T01 C2
2T02 E4
2T03 B2
2T04 D7
2T05 D6
2T06 B3
2T10 C7
2T11 E5
2T12 B1
2T13 D7
2T18 B3
2T20 E5
2T21 A8
2T22 A10
2T23 A10
2T25 D5
2T26 E6
2T27 E6
2T28 E6
3T04 C2
3T06 C2
3T07 D7
3T09 D7
3T12 D4
3T16 D2
3T17 D3
3T18 D3
3T19 E3
3T21 A8
3T22 B8
3T23 B9
3T24 A9
3T25 B9
3T26 D4
3T27 D4
3T28 E5
3T29 E5
5T01 B3
5T04 B4
5T05 C3
5T06 C3
5T10 D7
5T11 D7
5T12 A9
6T01 C2
6T02 D4
6T03 E4
6T06 E2
6T07 D3
7T02 A2
7T03 E2
7T04 D3
7T06 A9
7T10 E5
9T01 E1
9T02 A3
9T05 E9
9T06 E9
9T07 B9
9T10 D5
9T11 C6
AT01 D10
FT01 C3
FT02 B5
FT04 C6
FT05 B4
IT02 D8
IT03 B3
IT04 B1
IT05 D4
IT06 E1
IT07 D3
IT09 E8
IT12 C6
IT13 C7
IT14 C7
IT15 D3
IT16 D2
IT17 E10
IT18 E10
IT20 E2
IT21 D3
IT24 B4
IT25 A8
IT26 A8
IT27 A9
IT28 A9
IT29 A9
IT30 E5


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
B2
TUNER: MAIN
B2
* 1T03
UV1318ST/AIH-MK3
RF IN
RF OUT
PRE-FIL
BOOSTER SPLITTER
PRE-FIL
TRACK FILTER
GAIN CTRL PRE-AMP
TRACK FILTER
INTMED FILTER
MIX-OSC
IF AMP
IFOUT
AGC DET
PLL
MT
MT
12
13
14
15
16
17
11
AGC
TU
NC1
NC2
33V
5V
AS
SCL
ADC
AGC
AS
SCL
SDA
ADC
VST
1
2
6
10
9
7
3
4
5
8
+8V6
IT04
2T12
10n
2T03
220n
7T02
L78M05CDT
IN
OUT
COM
GND
2
3
OUT
IN
2T06
100n
RES
9T02
+5VTUN
IT03
5T01
10u
FT05
2T18
10u
5T04
30R
IT24
+5VTUNMAIN
1T04
TEQ-716A
TUNER
14
15
13
12
AGC
AS
SCL
SDA
MB1
MB2
NC
TU2
IFOUT
FT02
3T04
100R
3T06
100R
+VTUN
FT01
5T06
30R
+VTUN2
5T05
30R
+VTUN1
6T01
BZG05C33
2T01
47n
9T11
FT04
IT12
2T05
47n
+VTUN1
2T04
100n
+5VTUNMAIN
IT13
IT14
2T10
47p
2T13
47p
5T10
5T11
220R
220R
3T07
100R
3T09
100R
IT25
2T21
10n
IT26
3T21
2K2
3T24
33R
IT28
+5VTUN
5T12
30R
IT27
7T06
BFS20
IT29
3T25
33R
9T07
3T22
2K7
3T23
270R
2T22
100n
2T23
10n
AT01
+5VTUNMAIN
RES
3T17
470R
IT15
RES
6T07
SML-010MT
IT07
+VTUN1
RES
3T18
100K
IT21
7T04
BC847BW
RES
RES
3T19
2K7
+5VTUNMAIN
RES
3T16
470R
IT16
RES
6T06
SML-010MT
IT20
VISUAL-CHECK
RES
9T01
IT06
7T03
BC847BW
RES
+5VTUNMAIN
3T26
33K
IT05
* 3T12
4K7
RES
3T27
100K
RES
6T02
BAS316
RES
6T03
BAS316
2T02
100n
2T11
RES
100u
+5VTUNMAIN
2T25
100n
IT30
9T10
7T10
BC847BW
2T20
47u 16V
3T28
22K
3T29
2K2
2T26
100n
2T27
100n
2T28
RES
1u0
AGC2
IT02
IT09
9T05
9T06
IT18
IT17
S-SDA-PIP
S-SCL-PIP
SCL-TUN
SDA-TUN
IF-TER2
8204 000 8408.5
F_15710_027.eps
130905

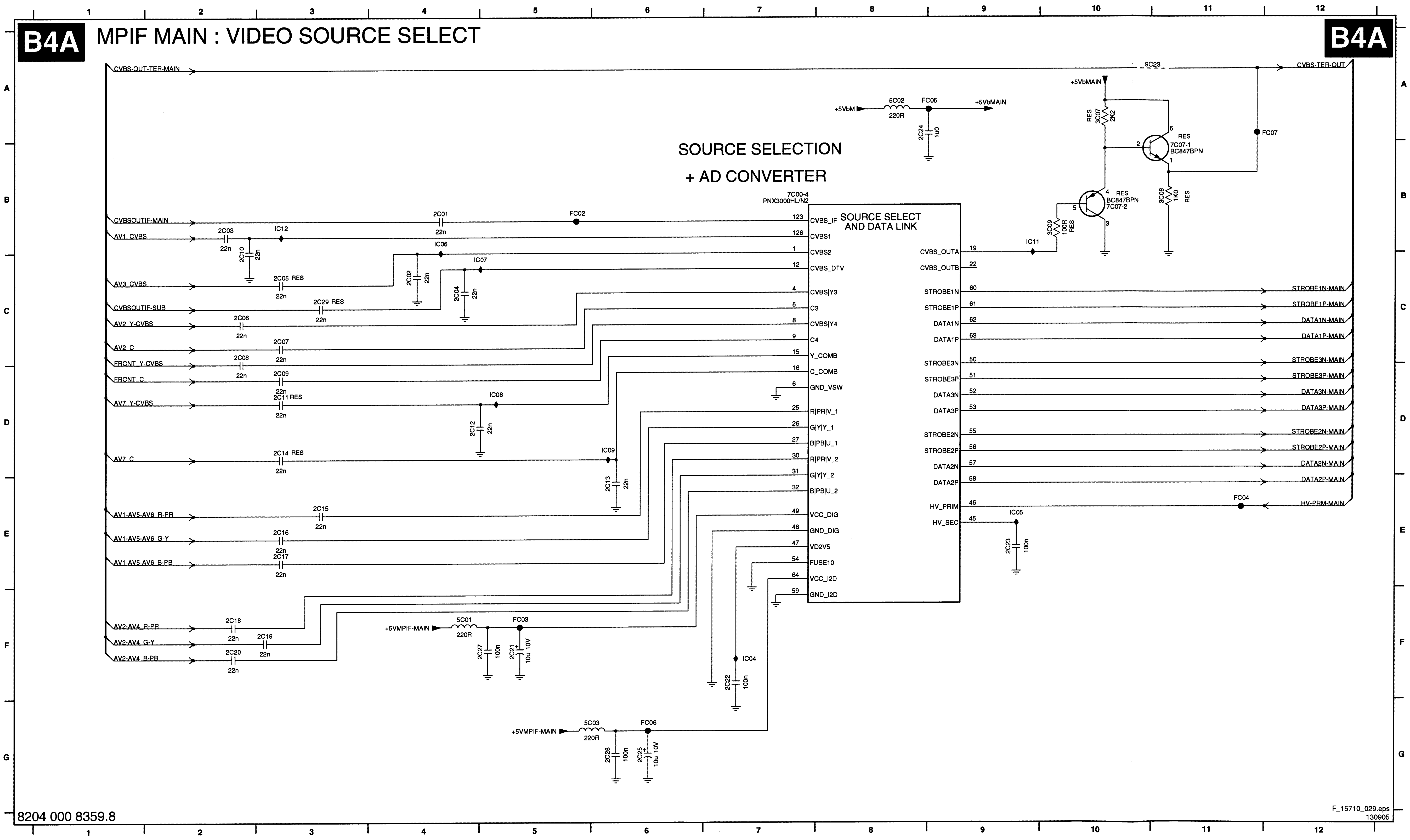
SSB: Tuner: Sub

1W02 A4
1W03 B3
2W03 E2
2W06 C4
2W07 C5
2W08 C5
2W14 E2
2W15 D5
2W16 D5
2W17 C6
2W18 B7
2W19 B7
2W20 E4
2W21 E4
2W22 E4
2W23 E3
2W24 D3
3W03 E5
3W05 E5
3W13 D2
3W14 B6
3W15 D6
3W16 D7
3W17 C6
3W18 C7
3W20 D2
3W21 D2
3W22 E4
3W23 E3
5W03 C1
5W04 D5
5W05 D5
5W06 B7
6T05 D2
6W04 D2
7W01 C7
7W10 D3
9W01 C6
9W10 C5
9W11 D3
AW02 E7
FW03 C4
IW04 D2
IW10 B4
IW11 B5
IW12 B5
IW13 C5
IW14 C1
IW15 C1
IW16 D4
IW17 D5
IW18 D4
IW19 E5
IW20 E4
IW21 B7
IW22 C6
IW23 C6
IW24 C6
IW25 C7
IW26 D2

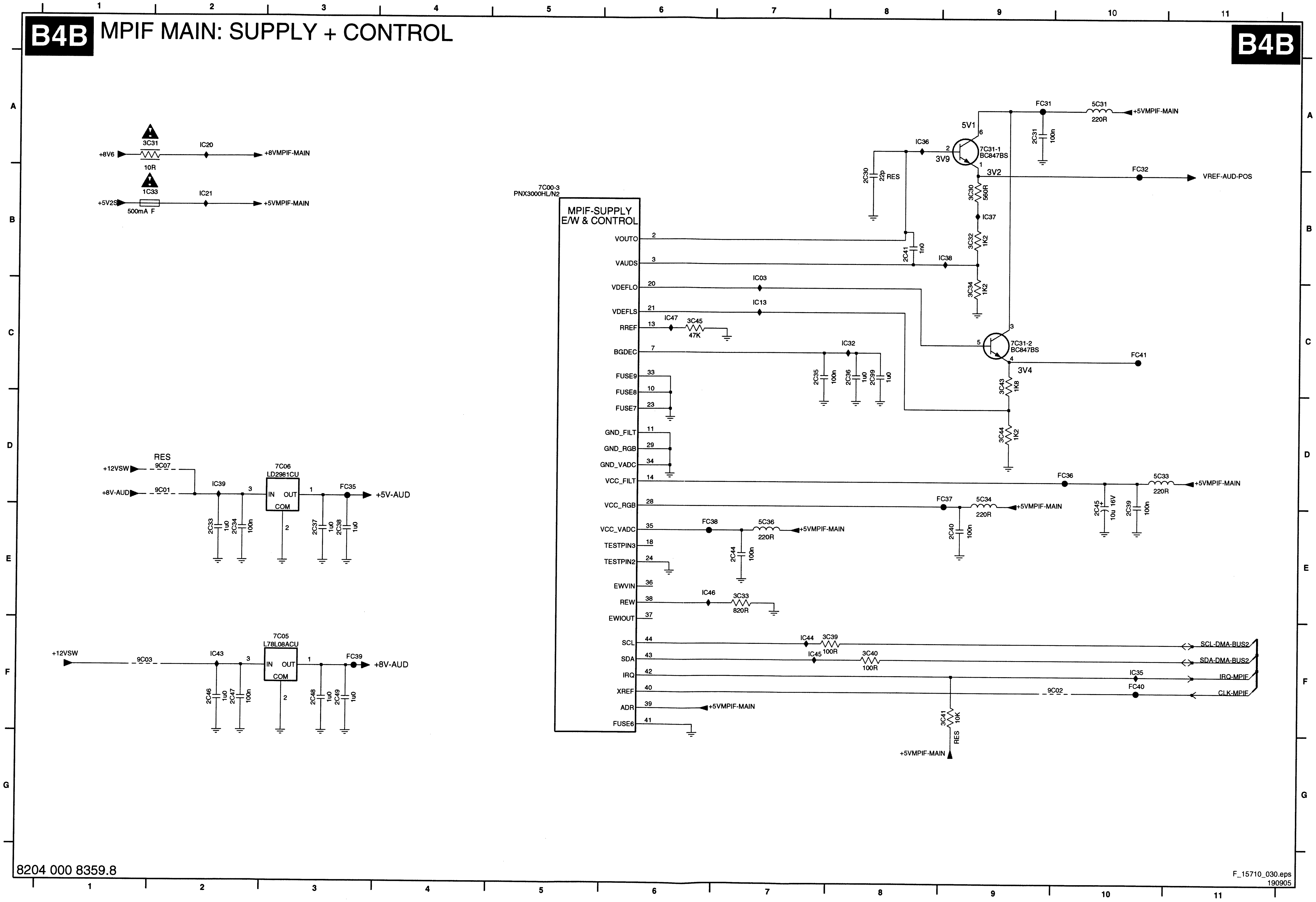

1
2
3
4
5
6
7
A
B
C
D
E
B3
TUNER : SUB
B3
* 1W02
UV1318S
L
H
M
L
H
M
PLL
MT1
MT2
MT3
MT4
12
13
14
15
AGC
TU
AS
SCL
SDA
NC1
VS
ADC
VST
IF2
NC2
IF1
1
2
3
4
5
6
7
8
9
10
11
1W03
TEQ-716A
TUNER
14
15
13
12
AGC
AS
SCL
SDA
MB1
MB2
NC
TU2
IFOUT
IW10
IW11
IW12
IW13
IW22
+5VTUN
5W06
30R
IW21
2W18
10n
2W19
100n
3W14
2K2
2W17
10n
IW23
3W17
33R
IW24
7W01
BFS20
IW25
3W18
33R
9W01
3W15
2K7
3W16
270R
IW14
5W03
30R
IW15
+5VTUN
+5VTUNSUB
FW03
2W06
100n
+5VTUNSUB
2W08
100n
2W07
47n
9W10
+5VTUNSUB
+VTUN2
+5VTUNSUB
3W20
33K
IW04
*3W13
22K
9W11
3W21
100K
RES
RES
6W04
BAS316
RES
6T05
BAS316
IW26
2W03
100n
2W14
100u
RES
2W23
47u 16V
+5VTUNSUB
2W24
100n
7W10
BC847BW
3W22
22K
3W23
2K2
2W20
100n
2W21
100n
2W22
1u0
RES
*2W15
47p
*2W16
47p
IW16
5W04
220R
5W05
220R
IW17
IW18
3W05
100R
3W03
100R
IW19
IW20
S-SCL-PIP
S-SDA-PIP
AGC1
1001
EMC HOLE
AW02
IF-TER1
8204 000 8446.4
F_15710_028.eps
130905

SSB: MPIF Main: Video Source Select

2C01	B4
2C02	C4
2C03	B2
2C04	C4
2C05	C3
2C06	C2
2C07	C3
2C08	C2
2C09	D3
2C10	B2
2C11	D3
2C12	D4
2C13	E6
2C14	D3
2C15	E3
2C16	E3
2C17	E3
2C18	F2
2C19	F3
2C20	F2
2C21	F5
2C22	F7
2C23	E9
2C24	A8
2C25	G6
2C27	F5
2C28	G6
2C29	C3
3C07	A10
3C08	B11
3C09	B10
5C01	F4
5C02	A8
5C03	G6
7C00-4	B7
7C07-1	B11
7C07-2	B10
9C23	A11
FC02	B5
FC03	F5
FC04	E11
FC05	A9
FC06	G6
FC07	A12
IC04	F7
IC05	E9
IC06	B4
IC07	C5
IC08	D5
IC09	D6
IC11	B9
IC12	B3


B4A
MPIF MAIN : VIDEO SOURCE SELECT
B4A
SOURCE SELECTION
+ AD CONVERTER
7C00-4
PNX3000HL/N2
SOURCE SELECT
AND DATA LINK
CVBS-OUT-TER-MAIN
9C23
CVBS-TER-OUT
+5VbMAIN
+5VbM
5C02
220R
FC05
+5VbMAIN
2C24
1u0
RES
3C07
2K2
RES
7C07-1
BC847BPN
FC07
RES
7C07-2
BC847BPN
3C08
1K0
RES
3C09
100R
RES
IC11
CVBSOUTIF-MAIN
2C01
22n
FC02
AV1_CVBS
2C03
22n
IC12
2C10
22n
IC06
2C02
22n
IC07
2C04
22n
AV3_CVBS
2C05 RES
22n
CVBSOUTIF-SUB
2C29 RES
22n
AV2_Y-CVBS
2C06
22n
AV2_C
2C07
22n
FRONT_Y-CVBS
2C08
22n
FRONT_C
2C09
22n
AV7_Y-CVBS
2C11 RES
22n
IC08
2C12
22n
AV7_C
2C14 RES
22n
IC09
2C13
22n
AV1-AV5-AV6_R-PR
2C15
22n
AV1-AV5-AV6_G-Y
2C16
22n
AV1-AV5-AV6_B-PB
2C17
22n
AV2-AV4_R-PR
2C18
22n
AV2-AV4_G-Y
2C19
22n
AV2-AV4_B-PB
2C20
22n
+5VMPIF-MAIN
5C01
220R
FC03
2C27
100n
2C21
10u 10V
IC04
2C22
100n
+5VMPIF-MAIN
5C03
220R
FC06
2C28
100n
2C25
10u 10V
123 CVBS_IF
126 CVBS1
1 CVBS2
12 CVBS_DTV
4 CVBS|Y3
5 C3
8 CVBS|Y4
9 C4
15 Y_COMB
16 C_COMB
6 GND_VSW
25 R|PR|V_1
26 G|Y|Y_1
27 B|PB|U_1
30 R|PR|V_2
31 G|Y|Y_2
32 B|PB|U_2
49 VCC_DIG
48 GND_DIG
47 VD2V5
54 FUSE10
64 VCC_I2D
59 GND_I2D
CVBS_OUTA 19
CVBS_OUTB 22
STROBE1N 60
STROBE1P 61
DATA1N 62
DATA1P 63
STROBE3N 50
STROBE3P 51
DATA3N 52
DATA3P 53
STROBE2N 55
STROBE2P 56
DATA2N 57
DATA2P 58
HV_PRIM 46
HV_SEC 45
STROBE1N-MAIN
STROBE1P-MAIN
DATA1N-MAIN
DATA1P-MAIN
STROBE3N-MAIN
STROBE3P-MAIN
DATA3N-MAIN
DATA3P-MAIN
STROBE2N-MAIN
STROBE2P-MAIN
DATA2N-MAIN
DATA2P-MAIN
FC04
HV-PRM-MAIN
IC05
2C23
100n
8204 000 8359.8
F_15710_029.eps
130905
1 2 3 4 5 6 7 8 9 10 11 12
A B C D E F G

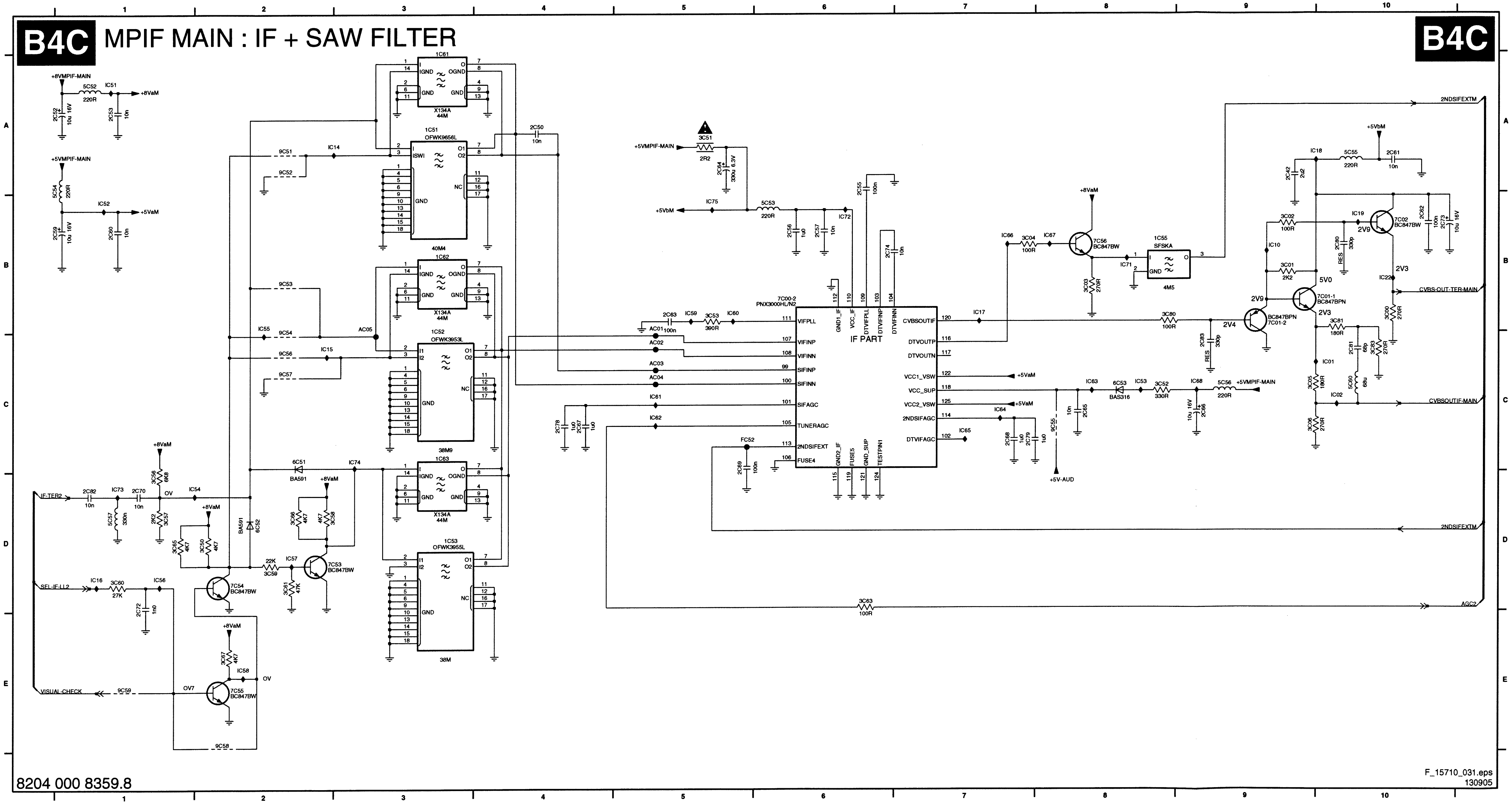
SSB: MPIF Main: Supply + Control


B4B MPIF MAIN: SUPPLY + CONTROL
B4B
+8V6
3C31
10R
IC20
+8VMPIF-MAIN
+5V2S
1C33
500mA F
IC21
+5VMPIF-MAIN
7C00-3
PNX3000HL/N2
MPIF-SUPPLY
E/W & CONTROL
VOUTO
VAUDS
VDEFLO
VDEFLS
RREF
BGDEC
FUSE9
FUSE8
FUSE7
GND_FILT
GND_RGB
GND_VADC
VCC_FILT
VCC_RGB
VCC_VADC
TESTPIN3
TESTPIN2
EWVIN
REW
EWIOUT
SCL
SDA
IRQ
XREF
ADR
FUSE6
IC03
IC13
IC47
3C45
47K
IC32
2C35
100n
2C36
1u0
2C99
1u0
FC31
5C31
220R
+5VMPIF-MAIN
2C31
100n
5V1
IC36
7C31-1
BC847BS
3V9
3V2
FC32
VREF-AUD-POS
2C30
22p
RES
3C30
560R
IC37
3C32
1K2
2C41
1n0
IC38
3C34
1K2
7C31-2
BC847BS
FC41
3V4
3C43
1K8
3C44
1K2
FC36
5C33
220R
2C45
10u 16V
2C39
100n
FC37
5C34
220R
2C40
100n
FC38
5C36
220R
2C44
100n
IC46
3C33
820R
IC44
3C39
100R
IC45
3C40
100R
SCL-DMA-BUS2
SDA-DMA-BUS2
IC35
IRQ-MPIF
FC40
9C02
CLK-MPIF
3C41
10K
RES
+12VSW
RES
9C07
+8V-AUD
9C01
IC39
7C06
LD2981CU
IN
OUT
COM
FC35
+5V-AUD
2C33
1u0
2C34
100n
2C37
1u0
2C38
1u0
+12VSW
9C03
IC43
7C05
L78L08ACU
FC39
+8V-AUD
2C46
1u0
2C47
100n
2C48
1u0
2C49
1u0
8204 000 8359.8
F_15710_030.eps
190905

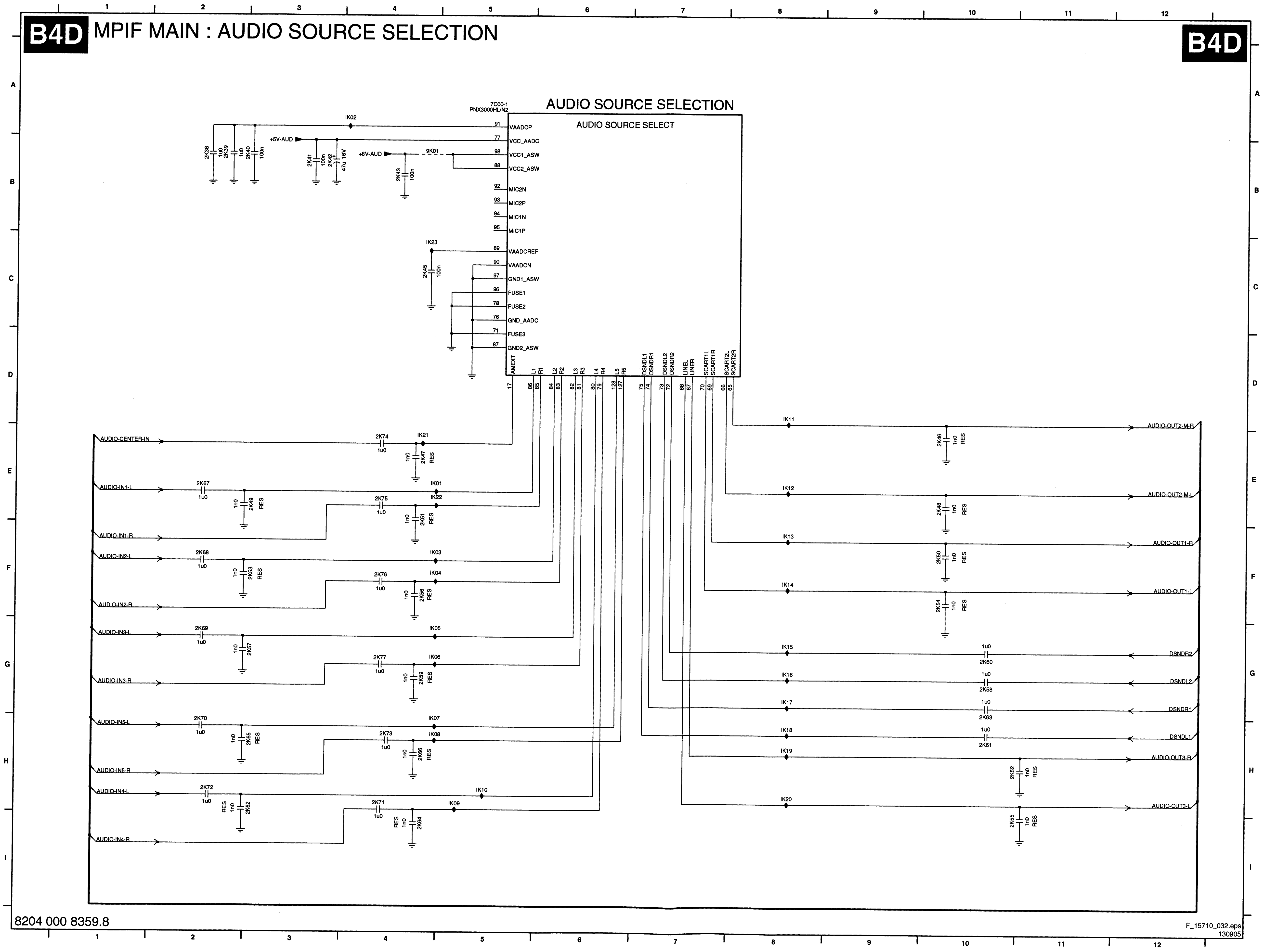
1C33	B1
2C30	B8
2C31	A9
2C33	E2
2C34	E2
2C35	C7
2C36	C8
2C37	E3
2C38	E3
2C39	D10
2C40	E9
2C41	B8
2C44	E7
2C45	D10
2C46	F2
2C47	F2
2C48	F3
2C49	F3
2C99	C8
3C30	B9
3C31	A1
3C32	B9
3C33	E7
3C34	C9
3C39	F8
3C40	F8
3C41	F9
3C43	C9
3C44	D9
3C45	C6
5C31	A10
5C33	D10
5C34	D9
5C36	E7
7C00-3	B5
7C05	F2
7C06	D3
7C31-1	A9
7C31-2	C9
9C01	D2
9C02	F10
9C03	F1
9C07	D2
FC31	A9
FC32	B10
FC35	D3
FC36	D10
FC37	D9
FC38	E6
FC39	F3
FC40	F10
FC41	C10
IC03	B7
IC13	C7
IC20	A2
IC21	B2
IC32	C8
IC35	F10
IC36	A8
IC37	B9
IC38	B9
IC39	D2
IC43	F2
IC44	F7
IC45	F7
IC46	E6
IC47	C6

SSB: MPIF Main: IF + SAW Filter

1C51	A3
1C52	C3
1C53	D3
1C55	B8
1C61	A3
1C62	B3
1C63	C3
2C42	A9
2C50	A4
2C52	A1
2C53	A1
2C55	A6
2C56	B6
2C57	B6
2C59	B1
2C60	B1
2C61	A10
2C62	B10
2C63	B5
2C64	A5
2C65	C8
2C66	C9
2C67	C4
2C68	C7
2C69	C5
2C70	D1
2C72	D1
2C73	B10
2C74	B6
2C78	C4
2C79	C7
2C80	B10
2C81	C10
2C82	D1
2C83	C9
3C00	B10
3C01	B9
3C02	B9
3C03	B8
3C04	B7
3C05	C9
3C06	C9
3C50	D2
3C51	A5
3C52	C8
3C53	B5
3C56	D1
3C57	D1
3C58	D2
3C59	D2
3C60	D1
3C61	D2
3C63	D6
3C65	D1
3C66	D2
3C67	E2
3C80	B8
3C81	B10
3C83	C10
5C52	A1
5C53	B6
5C54	A1
5C55	A10
5C56	C9
5C57	D1
5C60	C10
6C51	C2
6C52	D2
6C53	C8
7C00-2	B6
7C01-1	B10
7C01-2	B9
7C02	B10
7C53	D2
7C54	D2
7C55	E2
7C56	B8
9C51	A2
9C52	A2
9C53	B2
9C54	C2
9C55	C8
9C56	C2
9C57	C2
9C58	E2
9C59	E1
AC01	B5
AC02	C5
AC03	C5
AC04	C5
AC05	B3
FC52	C5
IC01	C10
IC02	C10
IC10	B9
IC14	A2
IC15	C2
IC16	D1
IC17	B7
IC18	A9
IC19	B10
IC22	B10
IC51	A1
IC52	B1
IC53	C8
IC54	D1
IC55	B2
IC56	D1
IC57	D2
IC58	E2
IC59	B5
IC60	B5
IC61	C5
IC62	C5
IC63	C8
IC64	C7
IC65	C7
IC66	B7
IC67	B8
IC68	C9
IC71	B8
IC72	B6
IC73	D1
IC74	C3
IC75	B5

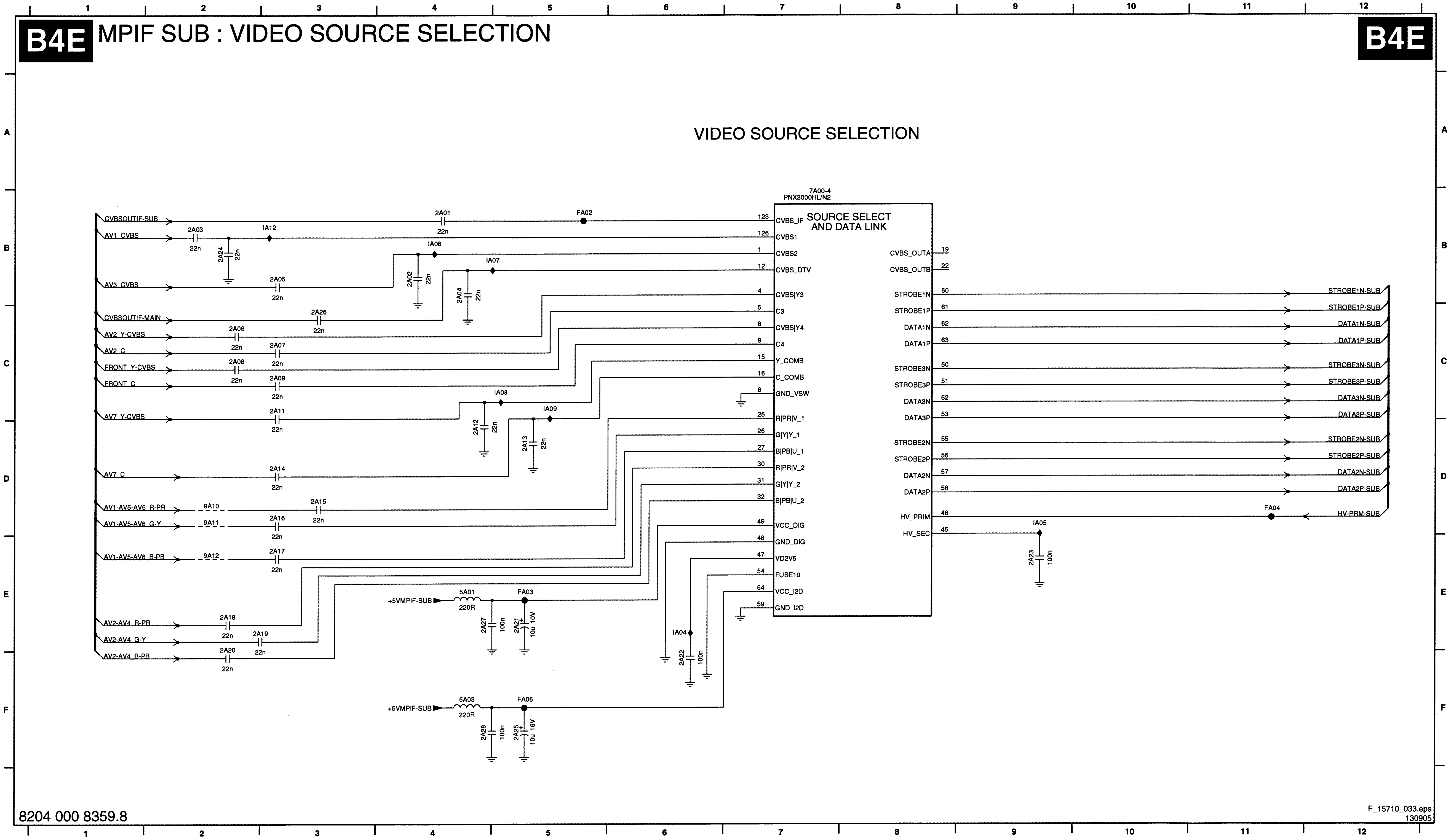

B4C
MPIF MAIN : IF + SAW FILTER
B4C
1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
+8VMPIF-MAIN
5C52
220R
IC51
+8VaM
2C52
10u 16V
2C53
10n
+5VMPIF-MAIN
5C54
220R
IC52
+5VaM
2C59
10u 16V
2C60
10n
1C61
IGND
OGND
GND
X134A
44M
1C51
OFWK9656L
ISWI
O1
O2
NC
40M4
2C50
10n
9C51
9C52
IC14
1C62
X134A
44M
9C53
IC55
9C54
AC05
9C56
IC15
9C57
1C52
OFWK3953L
I1
I2
38M9
6C51
BA591
IC74
1C63
X134A
44M
1C53
OFWK3955L
38M
IF-TER2
2C82
10n
IC73
2C70
10n
OV
IC54
5C57
330n
3C56
6K8
2K2
3C57
+8VaM
3C65
4K7
3C50
4K7
BA591
6C52
3C66
4K7
3C58
4K7
22K
3C59
IC57
3C61
47K
7C53
BC847BW
7C54
BC847BW
SEL-IF-LL2
IC16
3C60
27K
IC56
2C72
1n0
3C67
4K7
IC58
OV
VISUAL-CHECK
9C59
OV7
7C55
BC847BW
9C58
2C78
1u0
2C67
1u0
+5VMPIF-MAIN
3C51
2R2
2C64
330u 6.3V
+5VbM
IC75
5C53
220R
2C56
1u0
2C57
10n
IC72
2C55
100n
2C74
10n
7C00-2
PNX3000HL/N2
IF PART
2C63
100n
IC59
3C53
390R
IC60
AC01
AC02
AC03
AC04
IC61
IC62
FC52
2C69
100n
VIFPLL
VIFINP
VIFINN
SIFINP
SIFINN
SIFAGC
TUNERAGC
2NDSIFEXT
FUSE4
GND1_IF
VCC_IF
DTVIFPLL
DTVIFINP
DTVIFINN
GND2_IF
FUSE5
GND_SUP
TESTPIN1
CVBSOUTIF
DTVOUTP
DTVOUTN
VCC1_VSW
VCC_SUP
VCC2_VSW
2NDSIFAGC
DTVIFAGC
IC17
+5VaM
IC64
IC65
2C68
1u0
2C79
1u0
9C55
+5V-AUD
10n
2C65
IC63
6C53
BAS316
IC53
3C52
330R
IC68
10u 16V
2C66
5C56
220R
+5VMPIF-MAIN
+8VaM
IC66
3C04
100R
IC67
7C56
BC847BW
3C03
270R
IC71
1C55
SFSKA
GND
4M5
3C80
100R
2C83
RES
330p
2V4
BC847BPN
7C01-2
2V9
7C01-1
BC847BPN
5V0
2V3
IC10
3C01
2K2
3C02
100R
IC19
2V9
7C02
BC847BW
2C80
RES
330p
IC18
5C55
220R
+5VbM
2C61
10n
2C42
2u2
2C62
100n
2C73
10u 16V
2V3
IC22
3C00
270R
3C81
180R
2C81
68p
3C83
270R
IC01
3C05
180R
5C60
68u
IC02
3C06
270R
2NDSIFEXTM
CVBS-OUT-TER-MAIN
CVBSOUTIF-MAIN
2NDSIFEXTM
3C63
100R
AGC2
8204 000 8359.8
F_15710_031.eps
130905

SSB: MPIF Main: Audio Source Selection


B4D
MPIF MAIN : AUDIO SOURCE SELECTION
B4D
AUDIO SOURCE SELECTION
AUDIO SOURCE SELECT
7C00-1
PNX3000HL/N2
IK02
+5V-AUD
+8V-AUD
9K01
2K38 1u0
2K39 1u0
2K40 100n
2K41 100n
2K42 47u 16V
2K43 100n
IK23
2K45 100n
91 VAADCP
77 VCC_AADC
98 VCC1_ASW
88 VCC2_ASW
92 MIC2N
93 MIC2P
94 MIC1N
95 MIC1P
89 VAADCREF
90 VAADCN
97 GND1_ASW
96 FUSE1
78 FUSE2
76 GND_AADC
71 FUSE3
87 GND2_ASW
17 AMEXT
86 L1
85 R1
84 L2
83 R2
82 L3
81 R3
80 L4
79 R4
128 L5
127 R5
75 DSNDL1
74 DSNDR1
73 DSNDL2
72 DSNDR2
68 LINEL
67 LINER
70 SCART1L
69 SCART1R
66 SCART2L
65 SCART2R
AUDIO-CENTER-IN
2K74 1u0
IK21
2K47 1n0 RES
AUDIO-IN1-L
2K67 1u0
2K49 1n0 RES
IK01
2K75 1u0
IK22
2K51 1n0 RES
AUDIO-IN1-R
AUDIO-IN2-L
2K68 1u0
2K53 1n0 RES
IK03
2K76 1u0
IK04
2K56 1n0 RES
AUDIO-IN2-R
AUDIO-IN3-L
2K69 1u0
2K57 1n0
IK05
2K77 1u0
IK06
2K59 1n0 RES
AUDIO-IN3-R
AUDIO-IN5-L
2K70 1u0
2K65 1n0 RES
IK07
2K73 1u0
IK08
2K66 1n0 RES
AUDIO-IN5-R
AUDIO-IN4-L
2K72 1u0
2K62 1n0 RES
IK10
2K71 1u0
IK09
2K64 1n0 RES
AUDIO-IN4-R
IK11
2K46 1n0 RES
AUDIO-OUT2-M-R
IK12
2K48 1n0 RES
AUDIO-OUT2-M-L
IK13
2K50 1n0 RES
AUDIO-OUT1-R
IK14
2K54 1n0 RES
AUDIO-OUT1-L
IK15
2K60 1u0
DSNDR2
IK16
2K58 1u0
DSNDL2
IK17
2K63 1u0
DSNDR1
IK18
2K61 1u0
DSNDL1
IK19
2K52 1n0 RES
AUDIO-OUT3-R
IK20
2K55 1n0 RES
AUDIO-OUT3-L
8204 000 8359.8
F_15710_032.eps
130905

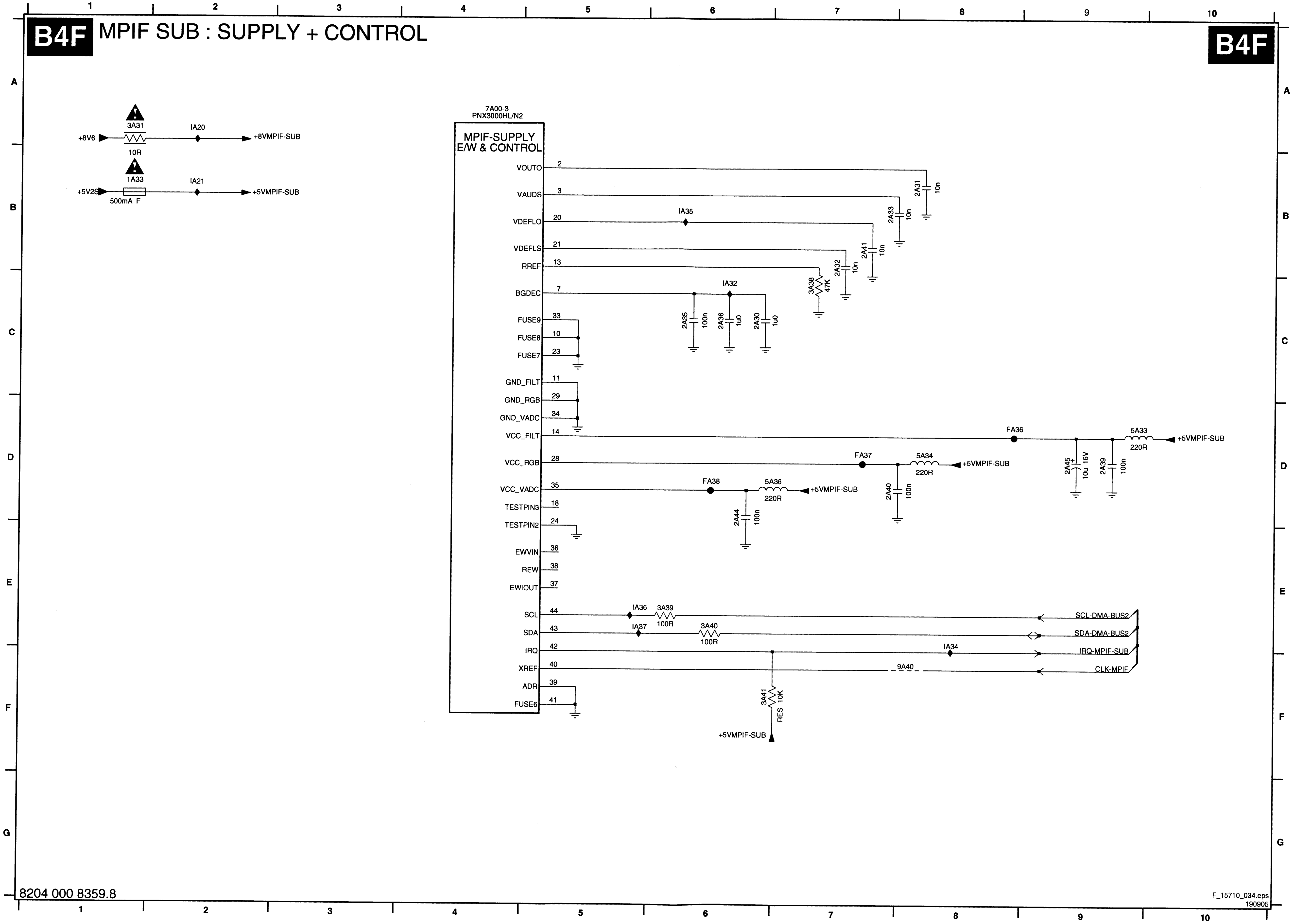
2K38	B2
2K39	B2
2K40	B2
2K41	B3
2K42	B3
2K43	B4
2K45	C4
2K46	E10
2K47	E4
2K48	E10
2K49	E3
2K50	F10
2K51	E4
2K52	H10
2K53	F3
2K54	F10
2K55	I10
2K56	F4
2K57	G3
2K58	G10
2K59	G4
2K60	G10
2K61	H10
2K62	H3
2K63	G10
2K64	I4
2K65	H3
2K66	H4
2K67	E2
2K68	F2
2K69	G2
2K70	H2
2K71	H4
2K72	H2
2K73	H4
2K74	E4
2K75	E4
2K76	F4
2K77	G4
7C00-1	A5
9K01	B4
IK01	E4
IK02	A4
IK03	F4
IK04	F4
IK05	G4
IK06	G4
IK07	H4
IK08	H4
IK09	H5
IK10	H5
IK11	D8
IK12	E8
IK13	F8
IK14	F8
IK15	G8
IK16	G8
IK17	G8
IK18	H8
IK19	H8
IK20	H8
IK21	E4
IK22	E4
IK23	C4

SSB: MPIF SUB: Video Source Selection


B4E
MPIF SUB : VIDEO SOURCE SELECTION
B4E
VIDEO SOURCE SELECTION
7A00-4
PNX3000HL/N2
SOURCE SELECT AND DATA LINK
CVBSOUTIF-SUB
AV1_CVBS
AV3_CVBS
CVBSOUTIF-MAIN
AV2_Y-CVBS
AV2_C
FRONT_Y-CVBS
FRONT_C
AV7_Y-CVBS
AV7_C
AV1-AV5-AV6_R-PR
AV1-AV5-AV6_G-Y
AV1-AV5-AV6_B-PB
AV2-AV4_R-PR
AV2-AV4_G-Y
AV2-AV4_B-PB
2A01 22n
2A03 22n
2A24 22n
2A05 22n
2A02 22n
2A04 22n
2A26 22n
2A06 22n
2A07 22n
2A08 22n
2A09 22n
2A11 22n
2A12 22n
2A13 22n
2A14 22n
2A15 22n
2A16 22n
2A17 22n
2A18 22n
2A19 22n
2A20 22n
9A10
9A11
9A12
IA12
IA06
IA07
IA08
IA09
IA04
IA05
FA02
FA03
FA04
FA06
+5VMPIF-SUB
5A01 220R
2A27 100n
2A21 10u 10V
2A22 100n
+5VMPIF-SUB
5A03 220R
2A28 100n
2A25 10u 16V
2A23 100n
123 CVBS_IF
126 CVBS1
1 CVBS2
12 CVBS_DTV
4 CVBS|Y3
5 C3
8 CVBS|Y4
9 C4
15 Y_COMB
16 C_COMB
6 GND_VSW
25 R|PR|V_1
26 G|Y|Y_1
27 B|PB|U_1
30 R|PR|V_2
31 G|Y|Y_2
32 B|PB|U_2
49 VCC_DIG
48 GND_DIG
47 VD2V5
54 FUSE10
64 VCC_I2D
59 GND_I2D
CVBS_OUTA 19
CVBS_OUTB 22
STROBE1N 60
STROBE1P 61
DATA1N 62
DATA1P 63
STROBE3N 50
STROBE3P 51
DATA3N 52
DATA3P 53
STROBE2N 55
STROBE2P 56
DATA2N 57
DATA2P 58
HV_PRIM 46
HV_SEC 45
STROBE1N-SUB
STROBE1P-SUB
DATA1N-SUB
DATA1P-SUB
STROBE3N-SUB
STROBE3P-SUB
DATA3N-SUB
DATA3P-SUB
STROBE2N-SUB
STROBE2P-SUB
DATA2N-SUB
DATA2P-SUB
HV-PRIM-SUB
1
2
3
4
5
6
7
8
9
10
11
12
A
B
C
D
E
F
8204 000 8359.8
F_15710_033.eps
130905

2A01	B4
2A02	B4
2A03	B2
2A04	B4
2A05	B3
2A06	C2
2A07	C3
2A08	C2
2A09	C3
2A11	C3
2A12	D4
2A13	D5
2A14	D3
2A15	D3
2A16	D3
2A17	E3
2A18	E2
2A19	E3
2A20	F2
2A21	E5
2A22	F6
2A23	E9
2A24	B2
2A25	F5
2A26	C3
2A27	E4
2A28	F4
5A01	E4
5A03	F4
7A00-4	B7
9A10	D2
9A11	D2
9A12	E2
FA02	B5
FA03	E5
FA04	D11
FA06	F5
IA04	E6
IA05	D9
IA06	B4
IA07	B5
IA08	C5
IA09	C5
IA12	B3

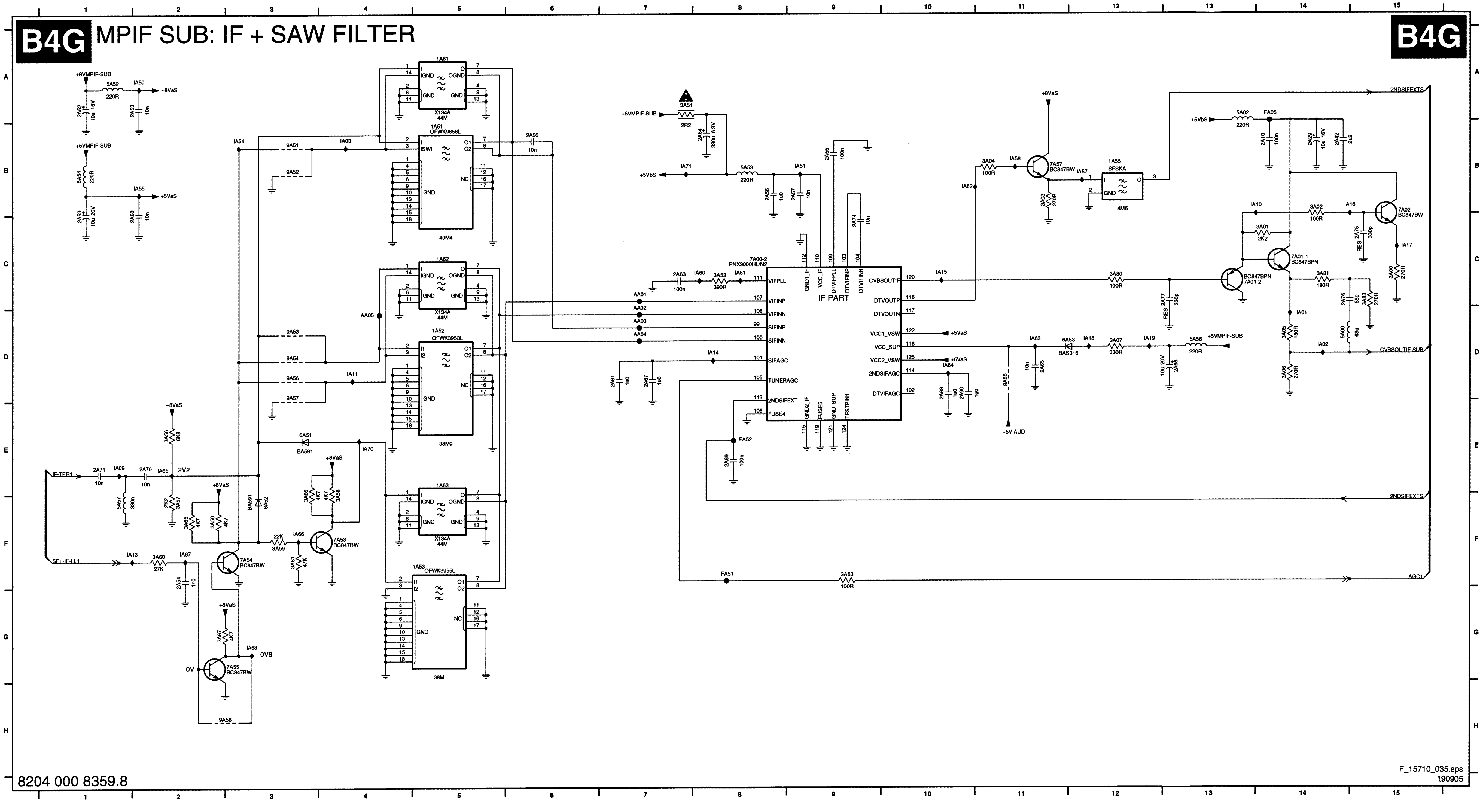
SSB: MPIF SUB: Supply + Control


B4F MPIF SUB : SUPPLY + CONTROL
B4F
1 2 3 4 5 6 7 8 9 10
A B C D E F G
3A31
10R
+8V6
IA20
+8VMPIF-SUB
1A33
500mA F
+5V2S
IA21
+5VMPIF-SUB
7A00-3
PNX3000HL/N2
MPIF-SUPPLY
E/W & CONTROL
VOUTO 2
VAUDS 3
VDEFLO 20
VDEFLS 21
RREF 13
BGDEC 7
FUSE9 33
FUSE8 10
FUSE7 23
GND_FILT 11
GND_RGB 29
GND_VADC 34
VCC_FILT 14
VCC_RGB 28
VCC_VADC 35
TESTPIN3 18
TESTPIN2 24
EWVIN 36
REW 38
EWIOUT 37
SCL 44
SDA 43
IRQ 42
XREF 40
ADR 39
FUSE6 41
IA35
2A31 10n
2A33 10n
2A41 10n
2A32 10n
3A38 47K
IA32
2A35 100n
2A36 1u0
2A30 1u0
FA36
5A33 220R
+5VMPIF-SUB
2A45 10u 16V
2A39 100n
FA37
5A34 220R
+5VMPIF-SUB
2A40 100n
FA38
5A36 220R
+5VMPIF-SUB
2A44 100n
IA36
3A39 100R
IA37
3A40 100R
IA34
9A40
SCL-DMA-BUS2
SDA-DMA-BUS2
IRQ-MPIF-SUB
CLK-MPIF
3A41 10K RES
+5VMPIF-SUB
8204 000 8359.8
F_15710_034.eps
190905

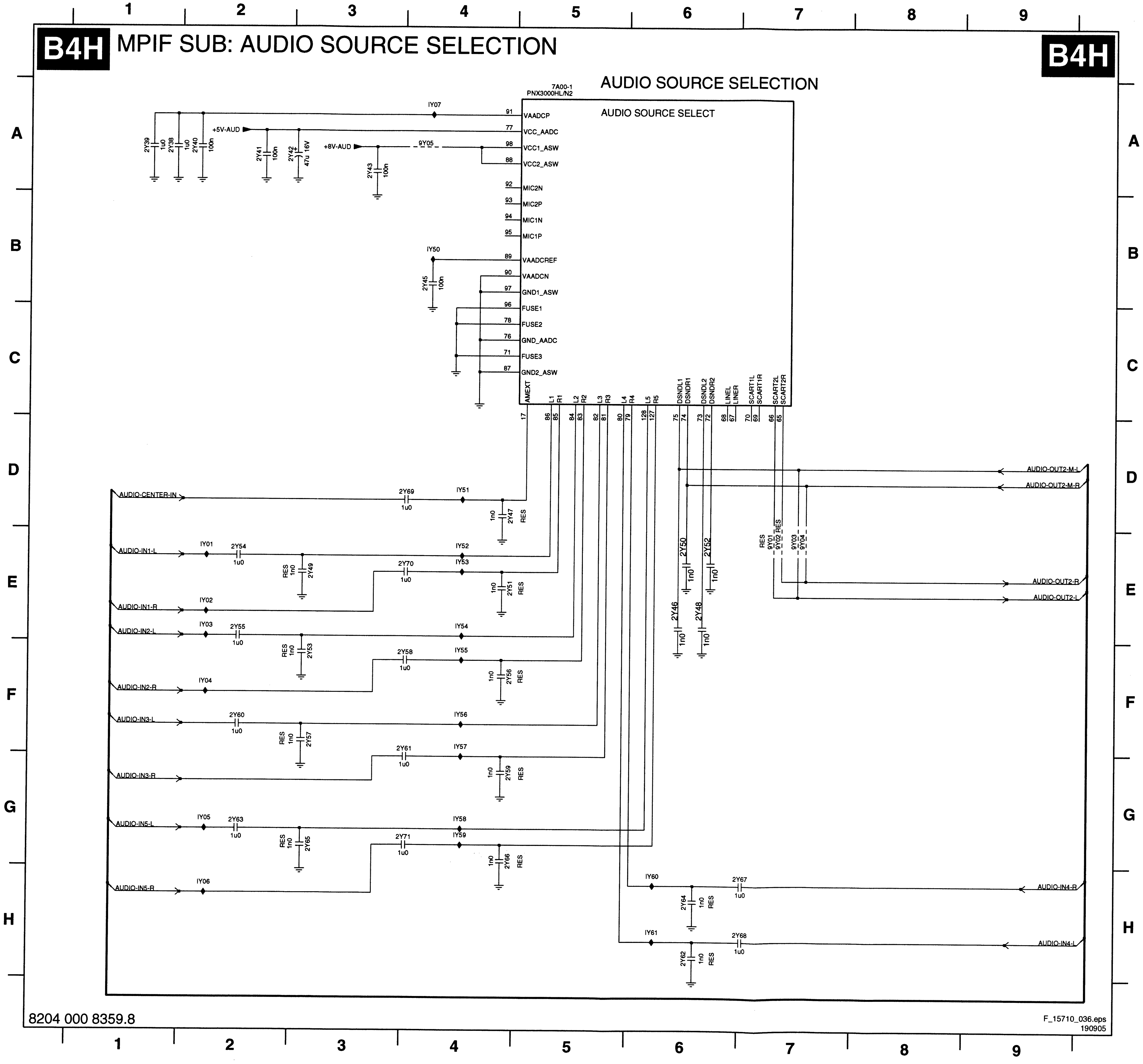
1A33	B1
2A30	C6
2A31	B8
2A32	B7
2A33	B7
2A35	C6
2A36	C6
2A39	D9
2A40	D7
2A41	B7
2A44	D6
2A45	D9
3A31	A1
3A38	C7
3A39	E6
3A40	E6
3A41	F6
5A33	D9
5A34	D8
5A36	D7
7A00-3	A4
9A40	F8
FA36	D8
FA37	D7
FA38	D6
IA20	A2
IA21	B2
IA32	C6
IA34	E8
IA35	B6
IA36	E5
IA37	E5

SSB: MPIF SUB: IF + SAW Filter

1A51 B5
1A52 D5
1A53 F4
1A55 B12
1A61 A5
1A62 C5
1A63 E5
2A10 B14
2A29 B14
2A42 B14
2A50 B6
2A52 A1
2A53 A2
2A54 F2
2A55 B9
2A56 B8
2A57 B9
2A59 B1
2A60 B2
2A61 D7
2A63 C7
2A64 B8
2A65 D11
2A66 D13
2A67 D7
2A68 D10
2A69 E8
2A70 E2
2A71 E1
2A74 C9
2A75 C15
2A76 C14
2A77 C13
2A90 D10
3A00 C15
3A01 C14
3A02 B14
3A03 B11
3A04 B11
3A05 D14
3A06 D14
3A07 D12
3A50 F2
3A51 A7
3A53 C8
3A56 E2
3A57 F2
3A58 E4
3A59 F3
3A60 F2
3A61 F3
3A63 F9
3A65 F2
3A66 E3
3A67 G2
3A80 C12
3A81 C14
3A83 C15
5A02 A13
5A52 A1
5A53 B8
5A54 B1
5A56 D13
5A57 F1
5A60 D14
6A51 E3
6A52 F3
6A53 D11
7A00-2 C8
7A01-1 C14
7A01-2 C13
7A02 B15
7A53 F4
7A54 F3
7A55 G3
7A57 B11
9A51 B3
9A52 B3
9A53 D3
9A54 D3
9A55 D11
9A56 D3
9A57 D3
9A58 H2
AA01 C7
AA02 D7
AA03 D7
AA04 D7
AA05 D4
FA05 A14
FA51 F8
FA52 E8
IA01 D14
IA02 D14
IA03 B4
IA10 B13
IA11 D4
IA13 F1
IA14 D8
IA15 C10
IA16 B14
IA17 C15
IA18 D12
IA19 D12
IA50 A2
IA51 B9
IA54 B3
IA55 B2
IA57 B12
IA58 B11
IA60 C8
IA61 C8
IA62 B10
IA63 D11
IA64 D10
IA65 E2
IA66 F3
IA67 F2
IA68 G3
IA69 E1
IA70 E4
IA71 B7

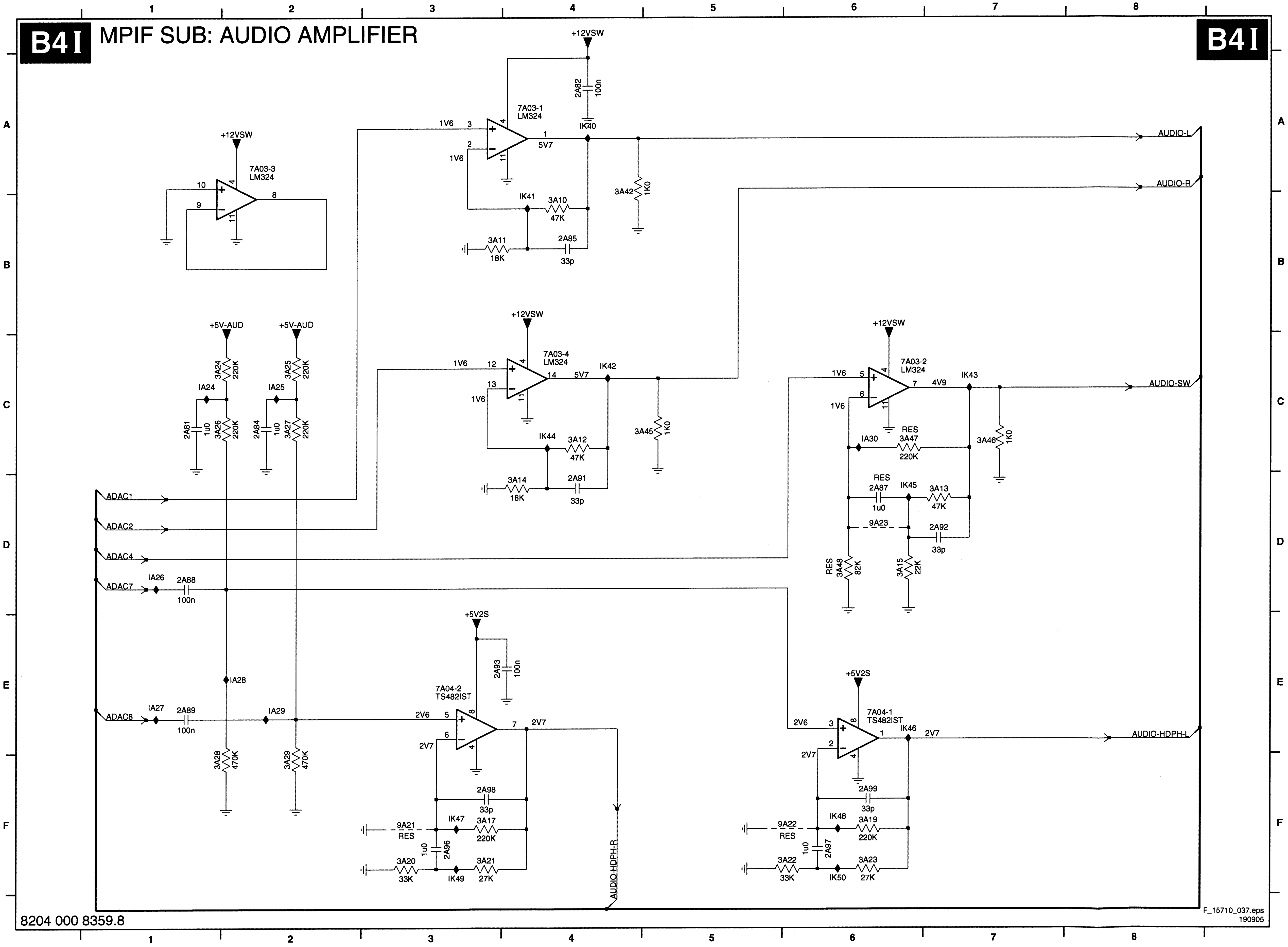

B4G
MPIF SUB: IF + SAW FILTER
B4G
1A61
1A51 OFWK9656L
1A62
1A52 OFWK3953L
1A63
1A53 OFWK3955L
X134A 44M
40M4
38M9
38M
7A00-2 PNX3000HL/N2
IF PART
1A55 SFSKA
4M5
7A57 BC847BW
7A02 BC847BW
7A01-1 BC847BPN
7A01-2 BC847BPN
7A53 BC847BW
7A54 BC847BW
7A55 BC847BW
+8VMPIF-SUB
+5VMPIF-SUB
+8VaS
+5VaS
+5VbS
+5V-AUD
2NDSIFEXTS
CVBSOUTIF-SUB
AGC1
IF-TER1
SEL-IF-LL1
2V2
0V8
0V
8204 000 8359.8
F_15710_035.eps
190905

SSB: MPIF SUB: Audio Source Selection


B4H
MPIF SUB: AUDIO SOURCE SELECTION
B4H
AUDIO SOURCE SELECTION
7A00-1
PNX3000HL/N2
AUDIO SOURCE SELECT
91 VAADCP
77 VCC_AADC
98 VCC1_ASW
88 VCC2_ASW
92 MIC2N
93 MIC2P
94 MIC1N
95 MIC1P
89 VAADCREF
90 VAADCN
97 GND1_ASW
96 FUSE1
78 FUSE2
76 GND_AADC
71 FUSE3
87 GND2_ASW
17 AMEXT
86 L1
85 R1
84 L2
83 R2
82 L3
81 R3
80 L4
79 R4
128 L5
127 R5
75 DSNDL1
74 DSNDR1
73 DSNDL2
72 DSNDR2
68 LINEL
67 LINER
70 SCART1L
69 SCART1R
66 SCART2L
65 SCART2R
IY07
+5V-AUD
+8V-AUD
9Y05
2Y39 1u0
2Y38 1u0
2Y40 100n
2Y41 100n
2Y42 47u 16V
2Y43 100n
IY50
2Y45 100n
AUDIO-CENTER-IN
2Y69 1u0
IY51
2Y47 1n0 RES
AUDIO-IN1-L
IY01
2Y54 1u0
2Y49 1n0 RES
IY52
2Y70 1u0
IY53
2Y51 1n0 RES
AUDIO-IN1-R
IY02
AUDIO-IN2-L
IY03
2Y55 1u0
2Y53 1n0 RES
IY54
2Y58 1u0
IY55
2Y56 1n0 RES
AUDIO-IN2-R
IY04
AUDIO-IN3-L
2Y60 1u0
2Y57 1n0 RES
IY56
2Y61 1u0
IY57
2Y59 1n0 RES
AUDIO-IN3-R
AUDIO-IN5-L
IY05
2Y63 1u0
2Y65 1n0 RES
IY58
2Y71 1u0
IY59
2Y66 1n0 RES
AUDIO-IN5-R
IY06
2Y50 1n0
2Y52 1n0
2Y46 1n0
2Y48 1n0
RES 9Y01
9Y02 RES
9Y03
9Y04
AUDIO-OUT2-M-L
AUDIO-OUT2-M-R
AUDIO-OUT2-R
AUDIO-OUT2-L
IY60
2Y67 1u0
2Y64 1n0 RES
AUDIO-IN4-R
IY61
2Y68 1u0
2Y62 1n0 RES
AUDIO-IN4-L
1 2 3 4 5 6 7 8 9
A B C D E F G H
8204 000 8359.8
F_15710_036.eps
190905

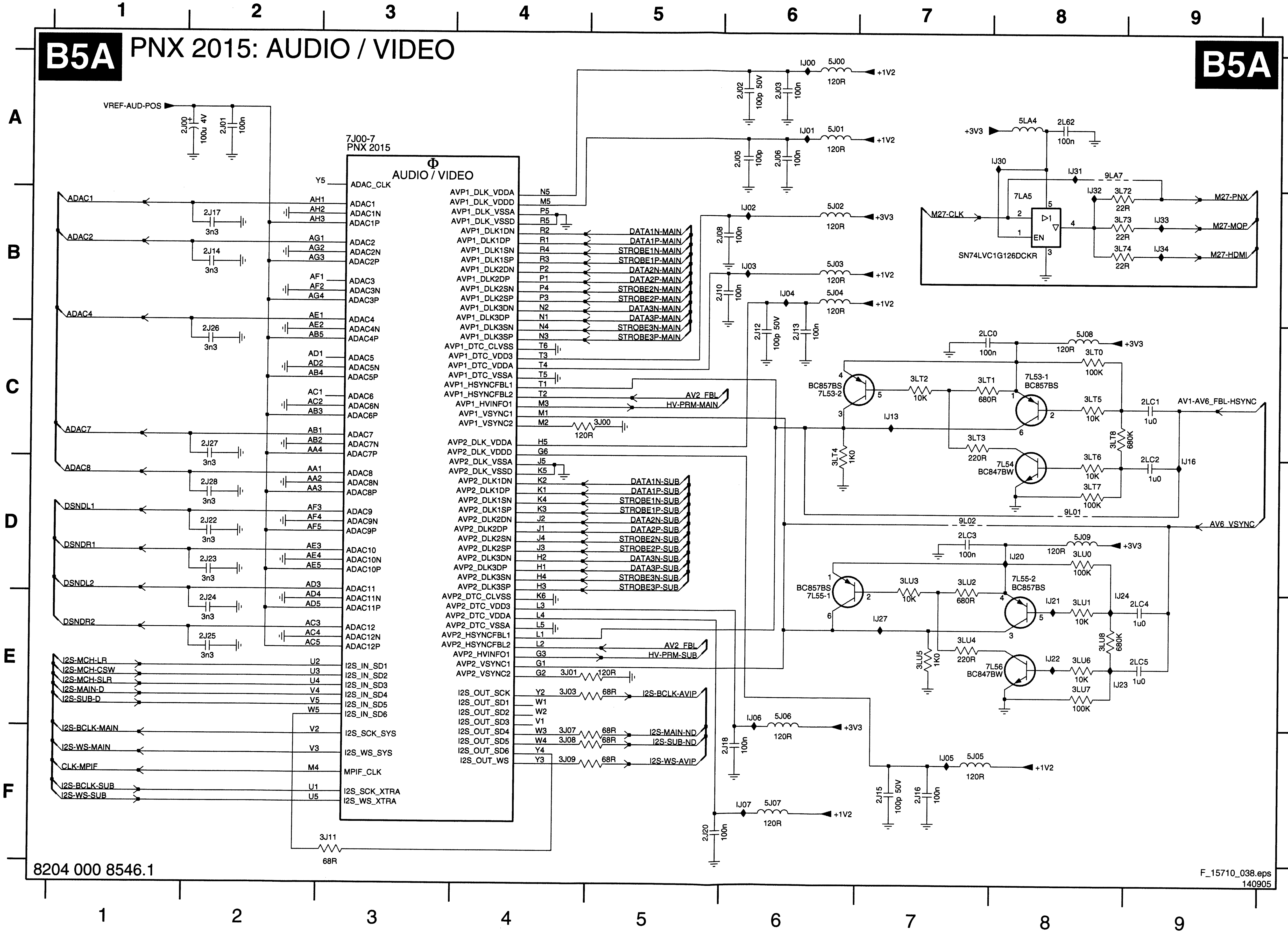
2Y38	A1
2Y39	A1
2Y40	A2
2Y41	A2
2Y42	A2
2Y43	A3
2Y45	B4
2Y46	E6
2Y47	D4
2Y48	E6
2Y49	E3
2Y50	E6
2Y51	E4
2Y52	E6
2Y53	F3
2Y54	E2
2Y55	E2
2Y56	F4
2Y57	F3
2Y58	F4
2Y59	G4
2Y60	F2
2Y61	F4
2Y62	H6
2Y63	G2
2Y64	H6
2Y65	G3
2Y66	G4
2Y67	H7
2Y68	H7
2Y69	D4
2Y70	E4
2Y71	G4
7A00-1	A5
9Y01	E7
9Y02	E7
9Y03	E7
9Y04	E7
9Y05	A4
IY01	E2
IY02	E2
IY03	E2
IY04	F2
IY05	G2
IY06	H2
IY07	A4
IY50	B4
IY51	D4
IY52	E4
IY53	E4
IY54	E4
IY55	F4
IY56	F4
IY57	F4
IY58	G4
IY59	G4
IY60	H6
IY61	H6

SSB: MPIF SUB: Audio Amplifier


B4I
MPIF SUB: AUDIO AMPLIFIER
B4I
1
2
3
4
5
6
7
8
A
B
C
D
E
F
+12VSW
2A82
100n
IK40
7A03-1
LM324
1V6
3
2
1V6
4
11
1
5V7
AUDIO-L
AUDIO-R
3A42
1K0
IK41
3A10
47K
3A11
18K
2A85
33p
7A03-3
LM324
10
9
8
+5V-AUD
3A24
220K
IA24
2A81
1u0
3A26
220K
3A25
220K
IA25
2A84
1u0
3A27
220K
7A03-4
LM324
12
13
14
IK42
3A45
IK44
3A12
3A14
2A91
7A03-2
LM324
5
6
7
4V9
IK43
AUDIO-SW
3A46
IA30
RES
3A47
220K
2A87
IK45
3A13
9A23
2A92
3A48
82K
3A15
22K
ADAC1
ADAC2
ADAC4
ADAC7
IA26
2A88
100n
+5V2S
2A93
7A04-2
TS482IST
IA28
ADAC8
IA27
2A89
IA29
2V6
2V7
3A28
470K
3A29
470K
2A98
33p
9A21
IK47
3A17
220K
2A96
3A20
33K
IK49
3A21
27K
AUDIO-HDPH-R
7A04-1
TS482IST
IK46
AUDIO-HDPH-L
2A99
9A22
IK48
3A19
2A97
3A22
IK50
3A23
8204 000 8359.8
F_15710_037.eps
190905

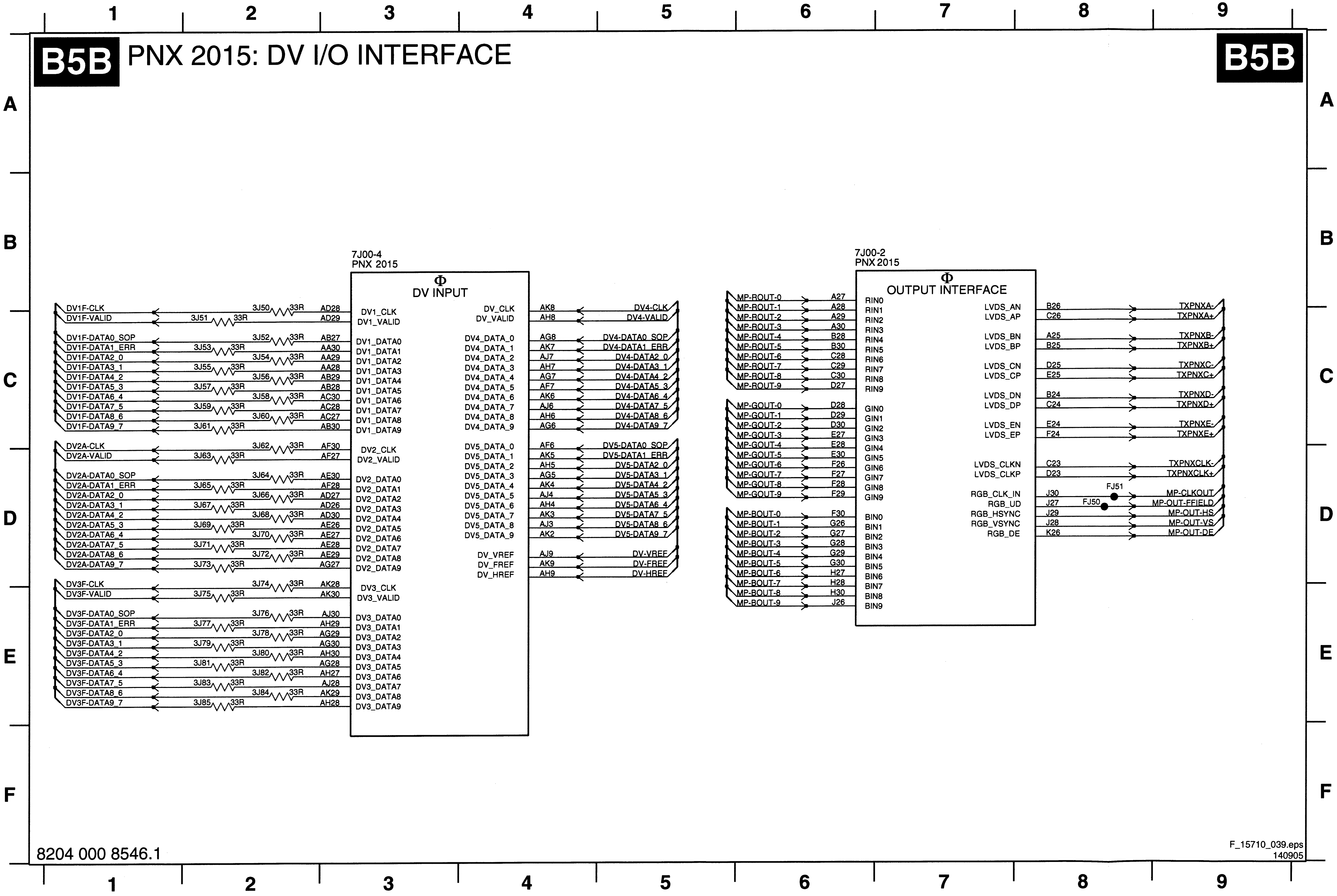
2A81	C1
2A82	A4
2A84	C2
2A85	B4
2A87	D6
2A88	D1
2A89	E1
2A91	D4
2A92	D7
2A93	E3
2A96	F3
2A97	F6
2A98	F3
2A99	F6
3A10	B4
3A11	B3
3A12	C4
3A13	D7
3A14	D4
3A15	D6
3A17	F3
3A19	F6
3A20	F3
3A21	F3
3A22	F6
3A23	F6
3A24	C1
3A25	C2
3A26	C1
3A27	C2
3A28	F1
3A29	F2
3A42	A4
3A45	C5
3A46	C7
3A47	C6
3A48	D6
7A03-1	A4
7A03-2	C6
7A03-3	A2
7A03-4	C4
7A04-1	E6
7A04-2	E3
9A21	F3
9A22	F6
9A23	D6
IA24	C1
IA25	C2
IA26	D1
IA27	E1
IA28	E2
IA29	E2
IA30	C6
IK40	A4
IK41	B4
IK42	C4
IK43	C7
IK44	C4
IK45	D6
IK46	E6
IK47	F3
IK48	F6
IK49	F3
IK50	F6

SSB: PNX2015: Audio/Video


B5A
PNX 2015: AUDIO / VIDEO
B5A
VREF-AUD-POS
2J00 100u 4V
2J01 100n
7J00-7
PNX 2015
AUDIO / VIDEO
Y5 ADAC_CLK
ADAC1 AH1 ADAC1 AH2 ADAC1N AH3 ADAC1P
2J17 3n3
ADAC2 AG1 ADAC2 AG2 ADAC2N AG3 ADAC2P
2J14 3n3
AF1 ADAC3 AF2 ADAC3N AG4 ADAC3P
ADAC4 AE1 ADAC4 AE2 ADAC4N AB5 ADAC4P
2J26 3n3
AD1 ADAC5 AD2 ADAC5N AB4 ADAC5P
AC1 ADAC6 AC2 ADAC6N AB3 ADAC6P
ADAC7 AB1 ADAC7 AB2 ADAC7N AA4 ADAC7P
2J27 3n3
ADAC8 AA1 ADAC8 AA2 ADAC8N AA3 ADAC8P
2J28 3n3
DSNDL1 AF3 ADAC9 AF4 ADAC9N AF5 ADAC9P
2J22 3n3
DSNDR1 AE3 ADAC10 AE4 ADAC10N AE5 ADAC10P
2J23 3n3
DSNDL2 AD3 ADAC11 AD4 ADAC11N AD5 ADAC11P
2J24 3n3
DSNDR2 AC3 ADAC12 AC4 ADAC12N AC5 ADAC12P
2J25 3n3
I2S-MCH-LR U2 I2S_IN_SD1
I2S-MCH-CSW U3 I2S_IN_SD2
I2S-MCH-SLR U4 I2S_IN_SD3
I2S-MAIN-D V4 I2S_IN_SD4
I2S-SUB-D V5 I2S_IN_SD5
W5 I2S_IN_SD6
I2S-BCLK-MAIN V2 I2S_SCK_SYS
I2S-WS-MAIN V3 I2S_WS_SYS
CLK-MPIF M4 MPIF_CLK
I2S-BCLK-SUB U1 I2S_SCK_XTRA
I2S-WS-SUB U5 I2S_WS_XTRA
3J11 68R
AVP1_DLK_VDDA N5
AVP1_DLK_VDDD M5
AVP1_DLK_VSSA P5
AVP1_DLK_VSSD R5
AVP1_DLK1DN R2 DATA1N-MAIN
AVP1_DLK1DP R1 DATA1P-MAIN
AVP1_DLK1SN R4 STROBE1N-MAIN
AVP1_DLK1SP R3 STROBE1P-MAIN
AVP1_DLK2DN P2 DATA2N-MAIN
AVP1_DLK2DP P1 DATA2P-MAIN
AVP1_DLK2SN P4 STROBE2N-MAIN
AVP1_DLK2SP P3 STROBE2P-MAIN
AVP1_DLK3DN N2 DATA3N-MAIN
AVP1_DLK3DP N1 DATA3P-MAIN
AVP1_DLK3SN N4 STROBE3N-MAIN
AVP1_DLK3SP N3 STROBE3P-MAIN
AVP1_DTC_CLVSS T6
AVP1_DTC_VDD3 T3
AVP1_DTC_VDDA T4
AVP1_DTC_VSSA T5
AVP1_HSYNCFBL1 T1
AVP1_HSYNCFBL2 T2 AV2_FBL
AVP1_HVINFO1 M3 HV-PRM-MAIN
AVP1_VSYNC1 M1
AVP1_VSYNC2 M2 3J00 120R
AVP2_DLK_VDDA H5
AVP2_DLK_VDDD G6
AVP2_DLK_VSSA J5
AVP2_DLK_VSSD K5
AVP2_DLK1DN K2 DATA1N-SUB
AVP2_DLK1DP K1 DATA1P-SUB
AVP2_DLK1SN K4 STROBE1N-SUB
AVP2_DLK1SP K3 STROBE1P-SUB
AVP2_DLK2DN J2 DATA2N-SUB
AVP2_DLK2DP J1 DATA2P-SUB
AVP2_DLK2SN J4 STROBE2N-SUB
AVP2_DLK2SP J3 STROBE2P-SUB
AVP2_DLK3DN H2 DATA3N-SUB
AVP2_DLK3DP H1 DATA3P-SUB
AVP2_DLK3SN H4 STROBE3N-SUB
AVP2_DLK3SP H3 STROBE3P-SUB
AVP2_DTC_CLVSS K6
AVP2_DTC_VDD3 L3
AVP2_DTC_VDDA L4
AVP2_DTC_VSSA L5
AVP2_HSYNCFBL1 L1
AVP2_HSYNCFBL2 L2 AV2_FBL
AVP2_HVINFO1 G3 HV-PRM-SUB
AVP2_VSYNC1 G1
AVP2_VSYNC2 G2 3J01 120R
I2S_OUT_SCK Y2 3J03 68R I2S-BCLK-AVIP
I2S_OUT_SD1 W1
I2S_OUT_SD2 W2
I2S_OUT_SD3 V1
I2S_OUT_SD4 W3 3J07 68R I2S-MAIN-ND
I2S_OUT_SD5 W4 3J08 68R I2S-SUB-ND
I2S_OUT_SD6 Y4
I2S_OUT_WS Y3 3J09 68R I2S-WS-AVIP
IJ00 5J00 120R +1V2
2J02 100p 50V
2J03 100n
IJ01 5J01 120R +1V2
2J05 100p
2J06 100n
IJ02 5J02 120R +3V3
2J08 100n
IJ03 5J03 120R +1V2
2J10 100n
IJ04 5J04 120R +1V2
2J12 100p 50V
2J13 100n
IJ06 5J06 120R +3V3
2J18 100n
IJ05 5J05 120R +1V2
2J15 100p 50V
2J16 100n
IJ07 5J07 120R +1V2
2J20 100n
+3V3 5LA4 2L62 100n
IJ30
IJ31 9LA7
7LA5
IJ32 3L72 22R M27-PNX
M27-CLK
3L73 22R IJ33 M27-MOP
3L74 22R IJ34 M27-HDMI
EN
SN74LVC1G126DCKR
2LC0 100n
5J08 120R +3V3
3LT0 100K
BC857BS 7L53-2
3LT2 10K
3LT1 680R
7L53-1 BC857BS
3LT5 10K
2LC1 1u0
AV1-AV6_FBL-HSYNC
IJ13
3LT8 680K
3LT4 1K0
3LT3 220R
7L54 BC847BW
3LT6 10K
2LC2 1u0
IJ16
3LT7 100K
9L01
9L02
AV6_VSYNC
2LC3 100n
5J09 120R +3V3
IJ20
3LU0 100K
BC857BS 7L55-1
3LU3 10K
3LU2 680R
7L55-2 BC857BS
IJ21 3LU1 10K
IJ24 2LC4 1u0
IJ27
3LU8 680K
3LU5 1K0
3LU4 220R
7L56 BC847BW
IJ22 3LU6 10K
IJ23 2LC5 1u0
3LU7 100K
8204 000 8546.1
F_15710_038.eps
140905
1 2 3 4 5 6 7 8 9
A B C D E F

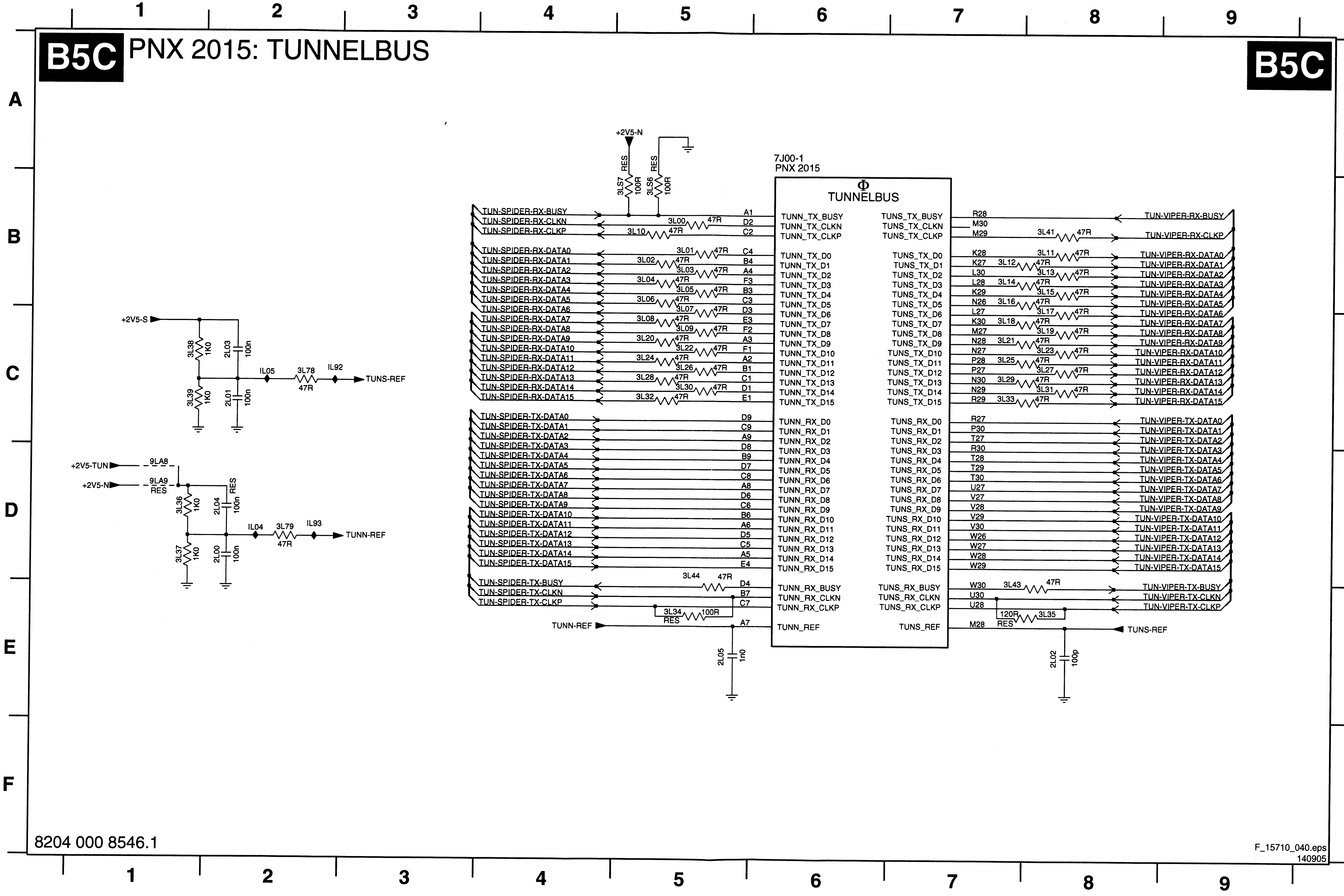
2J00	A1
2J01	A2
2J02	A6
2J03	A6
2J05	A6
2J06	A6
2J08	B5
2J10	B5
2J12	C6
2J13	C6
2J14	B2
2J15	F7
2J16	F7
2J17	B2
2J18	F6
2J20	F5
2J22	D2
2J23	D2
2J24	E2
2J25	E2
2J26	C2
2J27	C2
2J28	D2
2L62	A8
2LC0	C7
2LC1	C9
2LC2	D9
2LC3	D7
2LC4	E9
2LC5	E9
3J00	C5
3J01	E4
3J03	E4
3J07	F4
3J08	F4
3J09	F4
3J11	F3
3L72	B8
3L73	B8
3L74	B8
3LT0	C8
3LT1	C7
3LT2	C7
3LT3	C7
3LT4	C6
3LT5	C8
3LT6	C8
3LT7	D8
3LT8	C8
3LU0	D8
3LU1	E8
3LU2	D7
3LU3	D7
3LU4	E7
3LU5	E7
3LU6	E8
3LU7	E8
3LU8	E8
5J00	A6
5J01	A6
5J02	B6
5J03	B6
5J04	B6
5J05	F7
5J06	E6
5J07	F6
5J08	C8
5J09	D8
5LA4	A8
7J00-7	A3
7L53-1	C8
7L53-2	C6
7L54	D8
7L55-1	D6
7L55-2	D8
7L56	E8
7LA5	B8
9L01	D8
9L02	D7
9LA7	A8
IJ00	A6
IJ01	A6
IJ02	B6
IJ03	B6
IJ04	B6
IJ05	F7
IJ06	E6
IJ07	F6
IJ13	C7
IJ16	C9
IJ20	D8
IJ21	E8
IJ22	E8
IJ23	E8
IJ24	D8
IJ27	E7
IJ30	A8
IJ31	A8
IJ32	A8
IJ33	B9
IJ34	B9

SSB: PNX2015: DV I/O Interface


B5B
PNX 2015: DV I/O INTERFACE
7J00-4
PNX 2015
DV INPUT
DV1F-CLK
DV1F-VALID
DV1F-DATA0_SOP
DV1F-DATA1_ERR
DV1F-DATA2_0
DV1F-DATA3_1
DV1F-DATA4_2
DV1F-DATA5_3
DV1F-DATA6_4
DV1F-DATA7_5
DV1F-DATA8_6
DV1F-DATA9_7
DV2A-CLK
DV2A-VALID
DV2A-DATA0_SOP
DV2A-DATA1_ERR
DV2A-DATA2_0
DV2A-DATA3_1
DV2A-DATA4_2
DV2A-DATA5_3
DV2A-DATA6_4
DV2A-DATA7_5
DV2A-DATA8_6
DV2A-DATA9_7
DV3F-CLK
DV3F-VALID
DV3F-DATA0_SOP
DV3F-DATA1_ERR
DV3F-DATA2_0
DV3F-DATA3_1
DV3F-DATA4_2
DV3F-DATA5_3
DV3F-DATA6_4
DV3F-DATA7_5
DV3F-DATA8_6
DV3F-DATA9_7
33R
DV1_CLK
DV1_VALID
DV1_DATA0
DV1_DATA9
DV2_CLK
DV2_VALID
DV2_DATA0
DV2_DATA9
DV3_CLK
DV3_VALID
DV3_DATA0
DV3_DATA9
DV_CLK
DV_VALID
DV4_DATA_0
DV4_DATA_9
DV5_DATA_0
DV5_DATA_9
DV_VREF
DV_FREF
DV_HREF
DV4-CLK
DV4-VALID
DV4-DATA0_SOP
DV4-DATA1_ERR
DV4-DATA9_7
DV5-DATA0_SOP
DV5-DATA1_ERR
DV5-DATA9_7
DV-VREF
DV-FREF
DV-HREF
7J00-2
PNX 2015
OUTPUT INTERFACE
MP-ROUT-0
MP-ROUT-9
MP-GOUT-0
MP-GOUT-9
MP-BOUT-0
MP-BOUT-9
RIN0
RIN9
GIN0
GIN9
BIN0
BIN9
LVDS_AN
LVDS_AP
LVDS_BN
LVDS_BP
LVDS_CN
LVDS_CP
LVDS_DN
LVDS_DP
LVDS_EN
LVDS_EP
LVDS_CLKN
LVDS_CLKP
RGB_CLK_IN
RGB_UD
RGB_HSYNC
RGB_VSYNC
RGB_DE
TXPNXA-
TXPNXA+
TXPNXB-
TXPNXB+
TXPNXC-
TXPNXC+
TXPNXD-
TXPNXD+
TXPNXE-
TXPNXE+
TXPNXCLK-
TXPNXCLK+
FJ51
FJ50
MP-CLKOUT
MP-OUT-FFIELD
MP-OUT-HS
MP-OUT-VS
MP-OUT-DE
8204 000 8546.1
F_15710_039.eps
140905

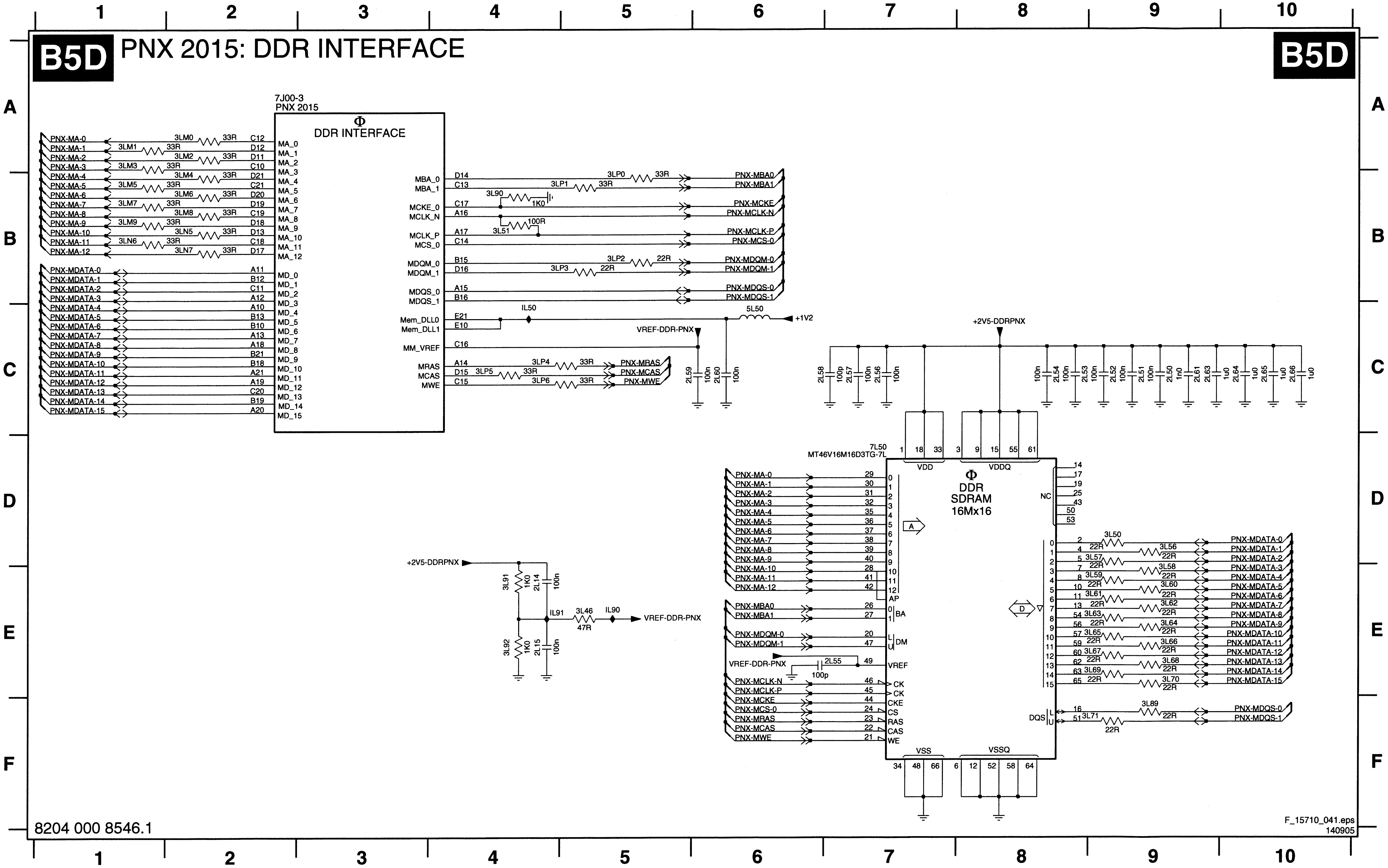
3J50	B2
3J51	C2
3J52	C2
3J53	C2
3J54	C2
3J55	C2
3J56	C2
3J57	C2
3J58	C2
3J59	C2
3J60	C2
3J61	C2
3J62	C2
3J63	D2
3J64	D2
3J65	D2
3J66	D2
3J67	D2
3J68	D2
3J69	D2
3J70	D2
3J71	D2
3J72	D2
3J73	D2
3J74	D2
3J75	E2
3J76	E2
3J77	E2
3J78	E2
3J79	E2
3J80	E2
3J81	E2
3J82	E2
3J83	E2
3J84	E2
3J85	E2
7J00-2	B6
7J00-4	B3
FJ50	D8
FJ51	D8

SSB: PNX2015: Tunnel Bus


B5C
PNX 2015: TUNNELBUS
B5C
7J00-1
PNX 2015
TUNNELBUS
TUNN_TX_BUSY
TUNN_TX_CLKN
TUNN_TX_CLKP
TUNN_TX_D0 … TUNN_TX_D15
TUNN_RX_D0 … TUNN_RX_D15
TUNN_RX_BUSY
TUNN_RX_CLKN
TUNN_RX_CLKP
TUNN_REF
TUNS_TX_BUSY
TUNS_TX_CLKN
TUNS_TX_CLKP
TUNS_TX_D0 … TUNS_TX_D15
TUNS_RX_D0 … TUNS_RX_D15
TUNS_RX_BUSY
TUNS_RX_CLKN
TUNS_RX_CLKP
TUNS_REF
TUN-SPIDER-RX-BUSY
TUN-SPIDER-RX-CLKN
TUN-SPIDER-RX-CLKP
TUN-SPIDER-RX-DATA0 … TUN-SPIDER-RX-DATA15
TUN-SPIDER-TX-DATA0 … TUN-SPIDER-TX-DATA15
TUN-SPIDER-TX-BUSY
TUN-SPIDER-TX-CLKN
TUN-SPIDER-TX-CLKP
TUN-VIPER-RX-BUSY
TUN-VIPER-RX-CLKP
TUN-VIPER-RX-DATA0 … TUN-VIPER-RX-DATA15
TUN-VIPER-TX-DATA0 … TUN-VIPER-TX-DATA15
TUN-VIPER-TX-BUSY
TUN-VIPER-TX-CLKN
TUN-VIPER-TX-CLKP
TUNN-REF
TUNS-REF
+2V5-N
+2V5-S
+2V5-TUN
9LA8
9LA9
RES
3L38 1K0
3L39 1K0
2L03 100n
2L01 100n
IL05
3L78 47R
IL92
3L36 1K0
3L37 1K0
2L04 100n
2L00 100n
IL04
3L79 47R
IL93
3LS7 RES 100R
3LS6 RES 100R
3L44 47R
3L34 RES 100R
3L35 120R RES
3L43 47R
3L41 47R
2L05 1n0
2L02 100p
8204 000 8546.1
F_15710_040.eps
140905

2L00	D2
2L01	C2
2L02	E8
2L03	C2
2L04	D2
2L05	E5
3L00	B5
3L01	B5
3L02	B5
3L03	B5
3L04	B5
3L05	B5
3L06	B5
3L07	C5
3L08	C5
3L09	C5
3L10	B5
3L11	B8
3L12	B7
3L13	B8
3L14	B7
3L15	B8
3L16	B7
3L17	C8
3L18	C7
3L19	C8
3L20	C5
3L21	C7
3L22	C5
3L23	C8
3L24	C5
3L25	C7
3L26	C5
3L27	C8
3L28	C5
3L29	C7
3L30	C5
3L31	C8
3L32	C5
3L33	C7
3L34	E5
3L35	E8
3L36	D1
3L37	D1
3L38	C1
3L39	C1
3L41	B8
3L43	E7
3L44	D5
3L78	C2
3L79	D2
3LS6	B5
3LS7	B5
7J00-1	A6
9L00	B2
9LA8	D1
9LA9	D1
IL04	D2
IL05	C2
IL06	B2
IL92	C2
IL93	D2

SSB: PNX2015: DDR Interface


B5D
PNX 2015: DDR INTERFACE
7J00-3
PNX 2015
DDR INTERFACE
PNX-MA-0 … PNX-MA-12
PNX-MDATA-0 … PNX-MDATA-15
3LM0 … 3LM9, 3LN5, 3LN6, 3LN7 33R
MA_0 … MA_12
MD_0 … MD_15
MBA_0
MBA_1
MCKE_0
MCLK_N
MCLK_P
MCS_0
MDQM_0
MDQM_1
MDQS_0
MDQS_1
Mem_DLL0
Mem_DLL1
MM_VREF
MRAS
MCAS
MWE
3LP0 33R
3LP1 33R
3L90 1K0
3L51 100R
3LP2 22R
3LP3 22R
3LP4 33R
3LP5 33R
3LP6 33R
PNX-MBA0
PNX-MBA1
PNX-MCKE
PNX-MCLK-N
PNX-MCLK-P
PNX-MCS-0
PNX-MDQM-0
PNX-MDQM-1
PNX-MDQS-0
PNX-MDQS-1
PNX-MRAS
PNX-MCAS
PNX-MWE
IL50
5L50
+1V2
VREF-DDR-PNX
2L59 100n
2L60 100n
+2V5-DDRPNX
2L58 100p
2L57 100n
2L56 100n
2L54 100n
2L53 100n
2L52 100n
2L51 100n
2L50 1n0
2L61 1u0
2L63 1u0
2L64 1u0
2L65 1u0
2L66 1u0
7L50
MT46V16M16D3TG-7L
DDR SDRAM 16Mx16
VDD
VDDQ
VSS
VSSQ
NC
A
D
BA
DM
VREF
CK
CKE
CS
RAS
CAS
WE
AP
DQS
2L55 100p
3L50 … 3L70 22R
3L89 22R
3L71 22R
3L91 1K0
3L92 1K0
2L14 100n
2L15 100n
IL91
3L46 47R
IL90
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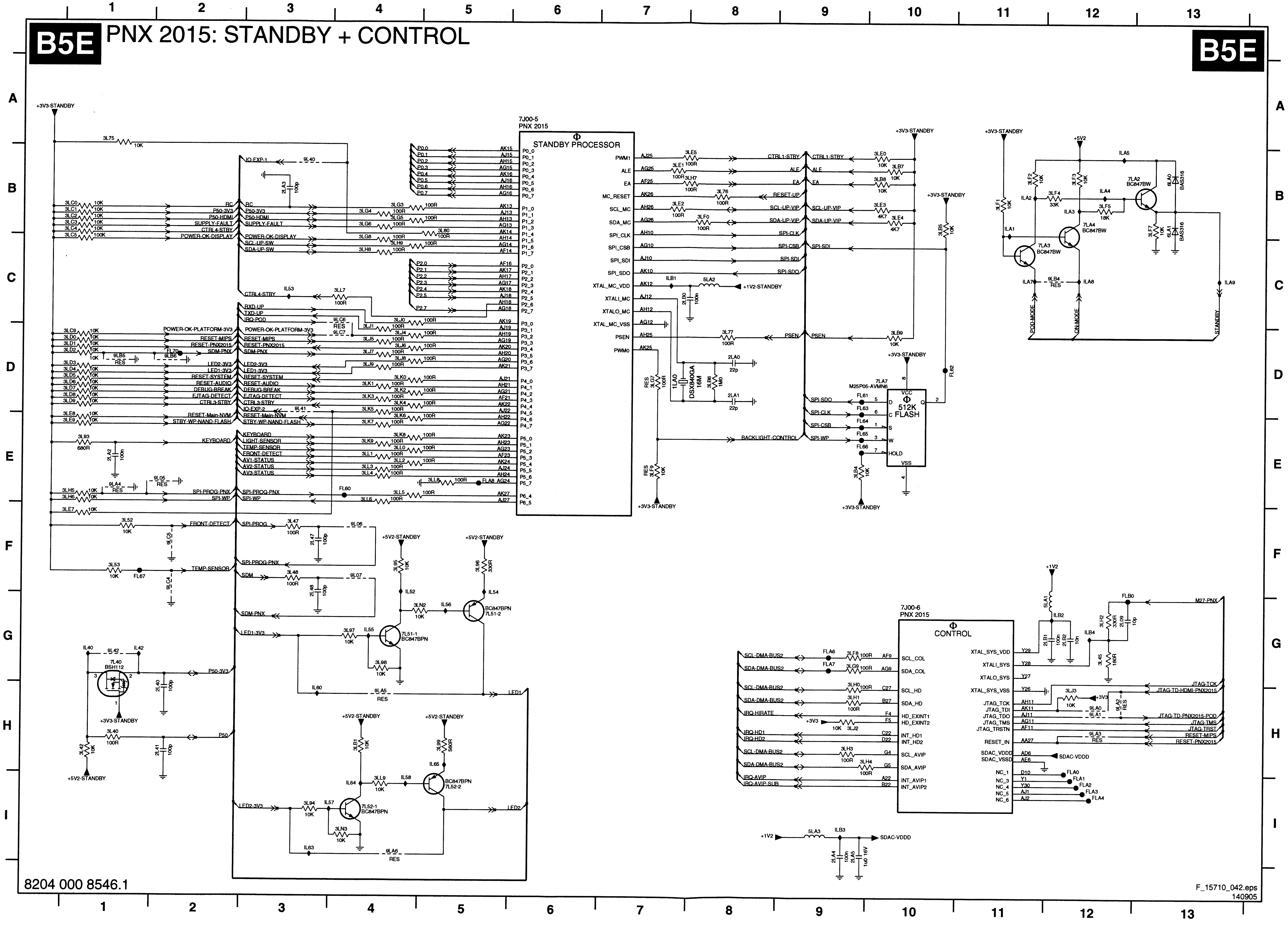
140905

2L14	E4
2L15	E4
2L50	C9
2L51	C9
2L52	C9
2L53	C8
2L54	C8
2L55	E7
2L56	C7
2L57	C7
2L58	C6
2L59	C5
2L60	C6
2L61	C9
2L63	C9
2L64	C10
2L65	C10
2L66	C10
3L46	E5
3L50	D9
3L51	B4
3L56	D9
3L57	D9
3L58	E9
3L59	E9
3L60	E9
3L61	E9
3L62	E9
3L63	E9
3L64	E9
3L65	E9
3L66	E9
3L67	E9
3L68	E9
3L69	E9
3L70	E9
3L71	F9
3L89	F9
3L90	B4
3L91	E4
3L92	E4
3LM0	A2
3LM1	A1
3LM2	A2
3LM3	A1
3LM4	B2
3LM5	B1
3LM6	B2
3LM7	B1
3LM8	B2
3LM9	B1
3LN5	B2
3LN6	B1
3LN7	B2
3LP0	B5
3LP1	B4
3LP2	B5
3LP3	B4
3LP4	C4
3LP5	C4
3LP6	C4
5L50	C6
7J00-3	A2
7L50	D7
IL50	C4
IL90	E5
IL91	E4

SSB: PNX2015: Standby + Control


B5E
PNX 2015: STANDBY + CONTROL
B5E
7J00-5
PNX 2015
STANDBY PROCESSOR
7J00-6
PNX 2015
CONTROL
7LA7
M25P05-AVMN6
512K FLASH
7L40
BSH112
7L51-1
BC847BPN
7L51-2
BC847BPN
7L52-1
BC847BPN
7L52-2
BC847BPN
7LA2
BC847BW
7LA3
BC847BW
7LA4
BC847BW
1LA0
DSX840GA
16M
+3V3-STANDBY
+5V2-STANDBY
+5V2
+1V2
+1V2-STANDBY
SDAC-VDDD
CTRL1-STBY
ALE
EA
RESET-UP
SCL-UP-VIP
SDA-UP-VIP
SPI-CLK
SPI-CSB
SPI-SDI
SPI-SDO
PSEN
SPI-WP
BACKLIGHT-CONTROL
POD-MODE
ON-MODE
STANDBY
RC
P50-3V3
P50-HDMI
SUPPLY-FAULT
CTRL4-STBY
POWER-OK-DISPLAY
SCL-UP-SW
SDA-UP-SW
IO-EXP-1
IO-EXP-2
RXD-UP
TXD-UP
IRQ-POD
POWER-OK-PLATFORM-3V3
RESET-MIPS
RESET-PNX2015
SDM-PNX
LED2-3V3
LED1-3V3
RESET-SYSTEM
RESET-AUDIO
DEBUG-BREAK
EJTAG-DETECT
CTRL3-STBY
RESET-Main-NVM
STBY-WP-NAND-FLASH
KEYBOARD
LIGHT-SENSOR
TEMP-SENSOR
FRONT-DETECT
AV1-STATUS
AV2-STATUS
AV3-STATUS
SPI-PROG-PNX
SPI-WP
SPI-PROG
SDM
SDM-PNX
LED1
LED2
P50-3V3
P50
SCL-DMA-BUS2
SDA-DMA-BUS2
IRQ-HIRATE
IRQ-HD1
IRQ-HD2
IRQ-AVIP
IRQ-AVIP-SUB
M27-PNX
JTAG-TCK
JTAG-TD-HDMI-PNX2015
JTAG-TD-PNX2015-POD
JTAG-TMS
JTAG-TRST
RESET-MIPS
RESET-PNX2015
8204 000 8546.1
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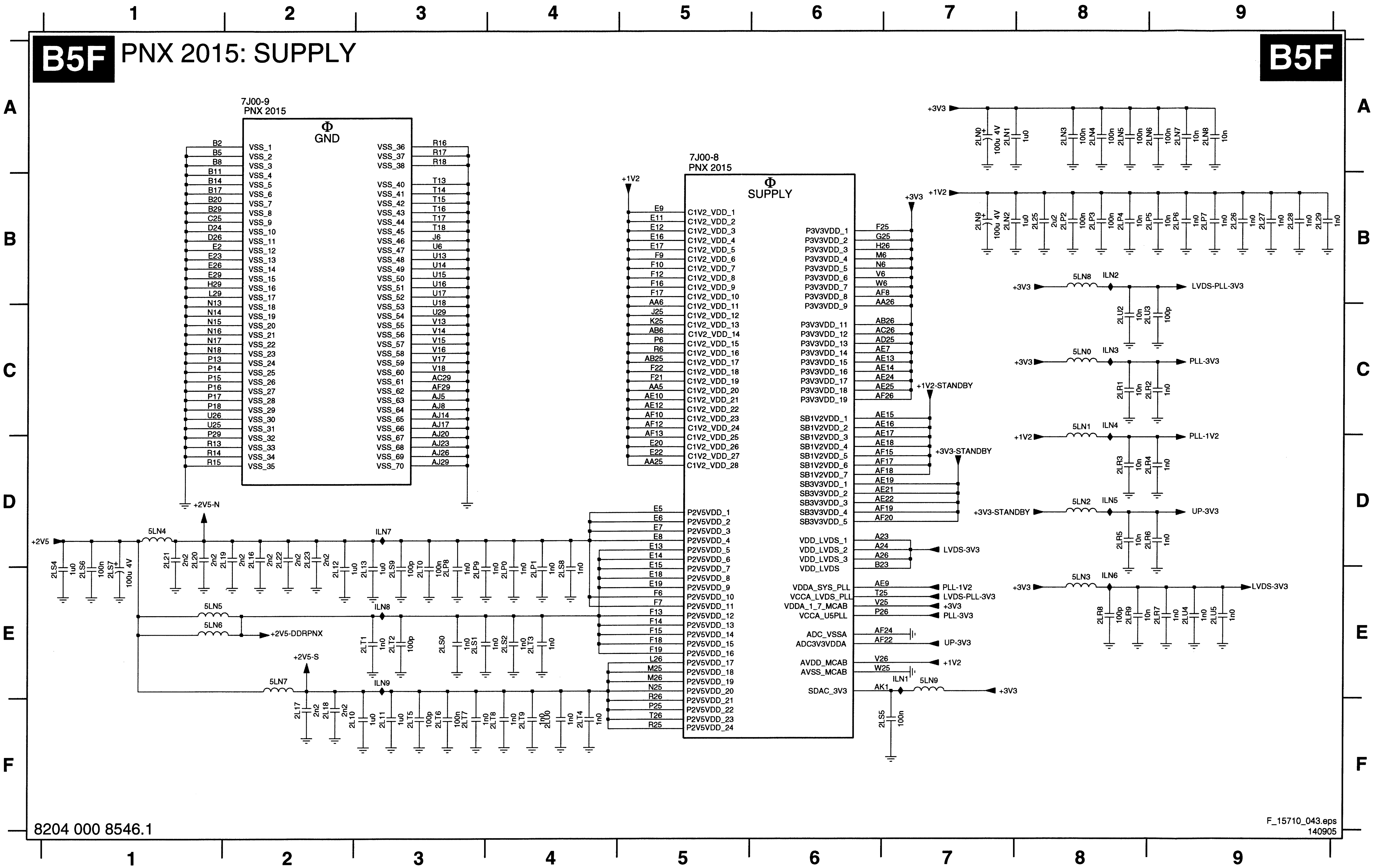
140905

1LA0	D7	3LK1	D4
2L09	G12	3LK2	D4
2L40	H2	3LK3	D4
2L41	H2	3LK4	D4
2L47	F3	3LK5	D4
2L48	F3	3LK6	E4
2LA0	D8	3LK7	E4
2LA1	D8	3LK8	E4
2LA2	E1	3LK9	E4
2LA3	B3	3LL0	E4
2LA4	I9	3LL1	E4
2LA5	I9	3LL2	E4
2LB0	C7	3LL3	E4
2LB1	G12	3LL4	E4
2LB2	G12	3LL5	E4
3L40	H1	3LL6	E4
3L42	H1	3LL7	C4
3L45	G12	3LL8	E5
3L47	F3	3LL9	I4
3L48	F3	3LN2	G5
3L52	F1	3LN3	I4
3L53	F1	5LA1	G12
3L75	A1	5LA2	C8
3L76	B8	5LA3	I9
3L77	D8	6LA0	B13
3L80	B5	6LA1	B13
3L93	E1	7J00-5	A6
3L94	I3	7J00-6	G10
3L95	F4	7L40	G1
3L96	F5	7L51-1	G4
3L97	G4	7L51-2	G5
3L98	G4	7L52-1	I4
3L99	H5	7L52-2	I5
3LB1	H4	7LA2	B12
3LB4	E9	7LA3	C11
3LB5	B10	7LA4	B12
3LB6	D8	7LA7	D10
3LB7	B10	9L05	E2
3LB8	B10	9L06	F4
3LB9	D10	9L07	F4
3LC0	B1	9L40	B3
3LC1	B1	9L41	D3
3LC2	B1	9L42	G1
3LC3	B1	9LA0	H12
3LC4	B1	9LA1	H12
3LC5	C1	9LA2	H12
3LC9	D1	9LA3	H12
3LD0	D1	9LA4	E1
3LD1	D1	9LA5	H4
3LD2	D1	9LA6	I4
3LD3	D1	9LB4	C12
3LD4	D1	9LB5	D1
3LD5	D1	9LB6	D2
3LD6	D1	9LC4	F2
3LD7	D1	9LC5	F2
3LD8	D1	9LC6	C4
3LD9	D1	9LC7	D4
3LE0	B10	FL60	E4
3LE1	B7	FL61	D9
3LE2	B7	FL62	D10
3LE3	B10	FL63	D9
3LE4	B10	FL64	E9
3LE5	B8	FL65	E9
3LE7	F1	FL66	E9
3LE8	E1	FL67	F1
3LE9	E1	FL70	D2
3LF0	B8	FLA0	H12
3LF1	B11	FLA1	I12
3LF2	B11	FLA2	I12
3LF3	B12	FLA3	I12
3LF4	B12	FLA4	I12
3LF5	B12	FLA6	G9
3LF7	B13	FLA7	G9
3LF8	G9	FLA8	E5
3LF9	E7	FLB0	G12
3LG3	B4	IL40	G1
3LG4	B4	IL42	G1
3LG5	B4	IL52	F4
3LG6	B4	IL53	C3
3LG7	D7	IL54	F5
3LG8	C4	IL55	G4
3LG9	G9	IL56	G5
3LH0	H9	IL57	I4
3LH1	H9	IL58	I4
3LH2	G12	IL60	H3
3LH3	H9	IL63	I3
3LH4	H10	IL64	I4
3LH5	E1	IL65	H5
3LH6	E1	ILA1	B11
3LH7	B8	ILA2	B11
3LH8	C4	ILA3	B12
3LH9	C4	ILA4	B12
3LJ0	C4	ILA5	B12
3LJ1	D4	ILA7	C11
3LJ2	H9	ILA8	C12
3LJ3	H12	ILA9	C13
3LJ4	D4	ILB1	C7
3LJ5	D4	ILB2	G12
3LJ6	D4	ILB3	I9
3LJ7	D4	ILB4	G12
3LJ8	D4		
3LJ9	D4		
3LK0	D4		

SSB: PNX2015: Supply


B5F
PNX 2015: SUPPLY
B5F
1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
7J00-9
PNX 2015
Φ
GND
B2 VSS_1
B5 VSS_2
B8 VSS_3
B11 VSS_4
B14 VSS_5
B17 VSS_6
B20 VSS_7
B29 VSS_8
C25 VSS_9
D24 VSS_10
D26 VSS_11
E2 VSS_12
E23 VSS_13
E26 VSS_14
E29 VSS_15
H29 VSS_16
L29 VSS_17
N13 VSS_18
N14 VSS_19
N15 VSS_20
N16 VSS_21
N17 VSS_22
N18 VSS_23
P13 VSS_24
P14 VSS_25
P15 VSS_26
P16 VSS_27
P17 VSS_28
P18 VSS_29
U26 VSS_30
U25 VSS_31
P29 VSS_32
R13 VSS_33
R14 VSS_34
R15 VSS_35
VSS_36 R16
VSS_37 R17
VSS_38 R18
VSS_40 T13
VSS_41 T14
VSS_42 T15
VSS_43 T16
VSS_44 T17
VSS_45 T18
VSS_46 J6
VSS_47 U6
VSS_48 U13
VSS_49 U14
VSS_50 U15
VSS_51 U16
VSS_52 U17
VSS_53 U18
VSS_54 U29
VSS_55 V13
VSS_56 V14
VSS_57 V15
VSS_58 V16
VSS_59 V17
VSS_60 V18
VSS_61 AC29
VSS_62 AF29
VSS_63 AJ5
VSS_64 AJ8
VSS_65 AJ14
VSS_66 AJ17
VSS_67 AJ20
VSS_68 AJ23
VSS_69 AJ26
VSS_70 AJ29
+2V5-N
7J00-8
PNX 2015
Φ
SUPPLY
+1V2
E9 C1V2_VDD_1
E11 C1V2_VDD_2
E12 C1V2_VDD_3
E16 C1V2_VDD_4
E17 C1V2_VDD_5
F9 C1V2_VDD_6
F10 C1V2_VDD_7
F12 C1V2_VDD_8
F16 C1V2_VDD_9
F17 C1V2_VDD_10
AA6 C1V2_VDD_11
J25 C1V2_VDD_12
K25 C1V2_VDD_13
AB6 C1V2_VDD_14
P6 C1V2_VDD_15
R6 C1V2_VDD_16
AB25 C1V2_VDD_17
F22 C1V2_VDD_18
F21 C1V2_VDD_19
AA5 C1V2_VDD_20
AE10 C1V2_VDD_21
AE12 C1V2_VDD_22
AF10 C1V2_VDD_23
AF12 C1V2_VDD_24
AF13 C1V2_VDD_25
E20 C1V2_VDD_26
E22 C1V2_VDD_27
AA25 C1V2_VDD_28
E5 P2V5VDD_1
E6 P2V5VDD_2
E7 P2V5VDD_3
E8 P2V5VDD_4
E13 P2V5VDD_5
E14 P2V5VDD_6
E15 P2V5VDD_7
E18 P2V5VDD_8
E19 P2V5VDD_9
F6 P2V5VDD_10
F7 P2V5VDD_11
F13 P2V5VDD_12
F14 P2V5VDD_13
F15 P2V5VDD_14
F18 P2V5VDD_15
F19 P2V5VDD_16
L26 P2V5VDD_17
M25 P2V5VDD_18
M26 P2V5VDD_19
N25 P2V5VDD_20
R26 P2V5VDD_21
P25 P2V5VDD_22
T26 P2V5VDD_23
R25 P2V5VDD_24
P3V3VDD_1 F25
P3V3VDD_2 G25
P3V3VDD_3 H26
P3V3VDD_4 M6
P3V3VDD_5 N6
P3V3VDD_6 V6
P3V3VDD_7 W6
P3V3VDD_8 AF8
P3V3VDD_9 AA26
P3V3VDD_11 AB26
P3V3VDD_12 AC26
P3V3VDD_13 AD25
P3V3VDD_14 AE7
P3V3VDD_15 AE13
P3V3VDD_16 AE14
P3V3VDD_17 AE24
P3V3VDD_18 AE25
P3V3VDD_19 AF26
SB1V2VDD_1 AE15
SB1V2VDD_2 AE16
SB1V2VDD_3 AE17
SB1V2VDD_4 AE18
SB1V2VDD_5 AF15
SB1V2VDD_6 AF17
SB1V2VDD_7 AF18
SB3V3VDD_1 AE19
SB3V3VDD_2 AE21
SB3V3VDD_3 AE22
SB3V3VDD_4 AF19
SB3V3VDD_5 AF20
VDD_LVDS_1 A23
VDD_LVDS_2 A24
VDD_LVDS_3 A26
VDD_LVDS B23
VDDA_SYS_PLL AE9
VCCA_LVDS_PLL T25
VDDA_1_7_MCAB V25
VCCA_USPLL P26
ADC_VSSA AF24
ADC3V3VDDA AF22
AVDD_MCAB V26
AVSS_MCAB W25
SDAC_3V3 AK1
+3V3
+1V2
+1V2-STANDBY
+3V3-STANDBY
LVDS-3V3
PLL-1V2
LVDS-PLL-3V3
+3V3
PLL-3V3
UP-3V3
+1V2
ILN1
5LN9
+3V3
2LS5 100n
2LN0 100u 4V
2LN1 1u0
2LN3 100n
2LN4 100n
2LN5 100n
2LN6 100n
2LN7 10n
2LN8 10n
2LN9 100u 4V
2LN2 1u0
2L25 2u2
2LP2 100n
2LP3 100n
2LP4 10n
2LP5 10n
2LP6 1n0
2LP7 1n0
2L26 1n0
2L27 1n0
2L28 1n0
2L29 1n0
5LN8 ILN2
LVDS-PLL-3V3
2LU2 10n
2LU3 100p
5LN0 ILN3
PLL-3V3
2LR1 10n
2LR2 1n0
5LN1 ILN4
PLL-1V2
2LR3 10n
2LR4 1n0
+3V3-STANDBY
5LN2 ILN5
UP-3V3
2LR5 10n
2LR6 1n0
5LN3 ILN6
LVDS-3V3
2LR8 100p
2LR9 10n
2LR7 1n0
2LU4 1n0
2LU5 1n0
+2V5
5LN4
2LS4 1u0
2LS6 100n
2LS7 100u 4V
2L21 2n2
2L20 2n2
2L19 2n2
2L16 2n2
2L22 2n2
2L23 2n2
2L12 1u0
2L13 1u0
2LS9 100p
2LT0 100n
2LP8 1n0
2LP9 1n0
2LP0 1n0
2LP1 1n0
2LS8 1n0
ILN7
5LN5
ILN8
5LN6
+2V5-DDRPNX
2LT1 1n0
2LT2 100p
2LS0 1n0
2LS1 1n0
2LS2 1n0
2LT3 1n0
+2V5-S
5LN7
ILN9
2L17 2n2
2L18 2n2
2L10 1u0
2L11 1u0
2LT5 100p
2LT6 100n
2LT7 1n0
2LT8 1n0
2LT9 1n0
2LU0 1n0
2LT4 1n0
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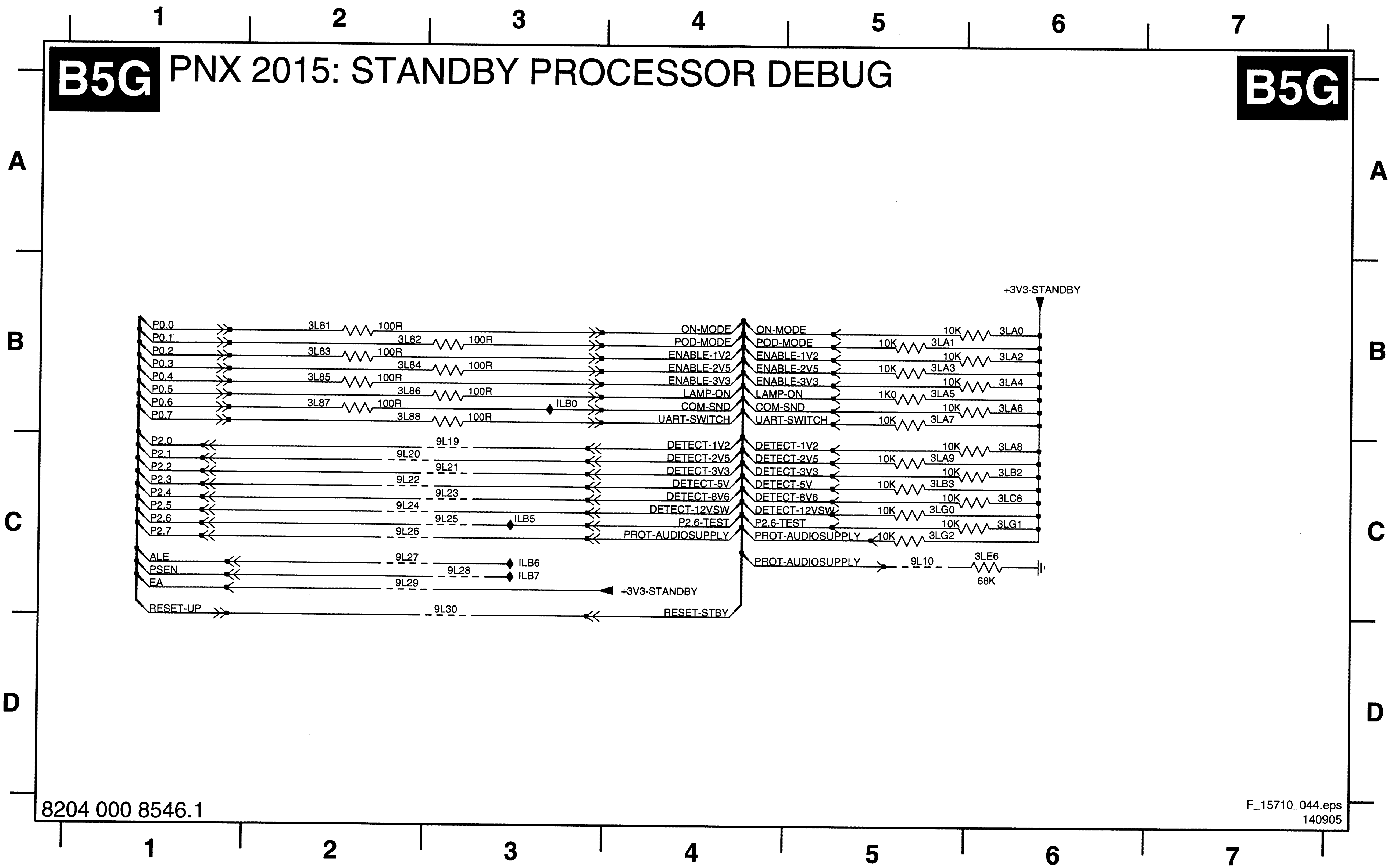
2L10	F3	5LN4	D1
2L11	F3	5LN5	E1
2L12	E2	5LN6	E1
2L13	E3	5LN7	E2
2L16	D2	5LN8	B8
2L17	F2	5LN9	E7
2L18	F2	7J00-8	A5
2L19	D2	7J00-9	A2
2L20	D1	ILN1	E7
2L21	D1	ILN2	B8
2L22	D2	ILN3	C8
2L23	D2	ILN4	C8
2L25	B8	ILN5	D8
2L26	B9	ILN6	E8
2L27	B9	ILN7	D3
2L28	B9	ILN8	E3
2L29	B9	ILN9	E3
2LN0	A7		
2LN1	A7		
2LN2	B7		
2LN3	A8		
2LN4	A8		
2LN5	A8		
2LN6	A9		
2LN7	A9		
2LN8	A9		
2LN9	B7		
2LP0	E4		
2LP1	E4		
2LP2	B8		
2LP3	B8		
2LP4	B8		
2LP5	B9		
2LP6	B9		
2LP7	B9		
2LP8	E3		
2LP9	E3		
2LR1	C8		
2LR2	C9		
2LR3	D8		
2LR4	D9		
2LR5	D8		
2LR6	D9		
2LR7	E9		
2LR8	E8		
2LR9	E8		
2LS0	E3		
2LS1	E3		
2LS2	E4		
2LS4	E1		
2LS5	F7		
2LS6	E1		
2LS7	E1		
2LS8	E4		
2LS9	E3		
2LT0	E3		
2LT1	E3		
2LT2	E3		
2LT3	E4		
2LT4	F4		
2LT5	F3		
2LT6	F3		
2LT7	F3		
2LT8	F4		
2LT9	F4		
2LU0	F4		
2LU2	C8		
2LU3	C8		
2LU4	E9		
2LU5	E9		
5LN0	C8		
5LN1	C8		
5LN2	D8		
5LN3	E8		

SSB: PNX2015: Standby Processor Debug


B5G
PNX 2015: STANDBY PROCESSOR DEBUG
B5G
1
2
3
4
5
6
7
A
B
C
D
P0.0
P0.1
P0.2
P0.3
P0.4
P0.5
P0.6
P0.7
3L81
100R
3L82
100R
3L83
100R
3L84
100R
3L85
100R
3L86
100R
3L87
100R
ILB0
3L88
100R
ON-MODE
POD-MODE
ENABLE-1V2
ENABLE-2V5
ENABLE-3V3
LAMP-ON
COM-SND
UART-SWITCH
P2.0
P2.1
P2.2
P2.3
P2.4
P2.5
P2.6
P2.7
9L19
9L20
9L21
9L22
9L23
9L24
9L25
ILB5
9L26
DETECT-1V2
DETECT-2V5
DETECT-3V3
DETECT-5V
DETECT-8V6
DETECT-12VSW
P2.6-TEST
PROT-AUDIOSUPPLY
ALE
PSEN
EA
9L27
ILB6
9L28
ILB7
9L29
+3V3-STANDBY
RESET-UP
9L30
RESET-STBY
+3V3-STANDBY
ON-MODE
10K
3LA0
POD-MODE
10K
3LA1
ENABLE-1V2
10K
3LA2
ENABLE-2V5
10K
3LA3
ENABLE-3V3
10K
3LA4
LAMP-ON
1K0
3LA5
COM-SND
10K
3LA6
UART-SWITCH
10K
3LA7
DETECT-1V2
10K
3LA8
DETECT-2V5
10K
3LA9
DETECT-3V3
10K
3LB2
DETECT-5V
10K
3LB3
DETECT-8V6
10K
3LC8
DETECT-12VSW
10K
3LG0
P2.6-TEST
10K
3LG1
PROT-AUDIOSUPPLY
10K
3LG2
PROT-AUDIOSUPPLY
9L10
3LE6
68K
8204 000 8546.1
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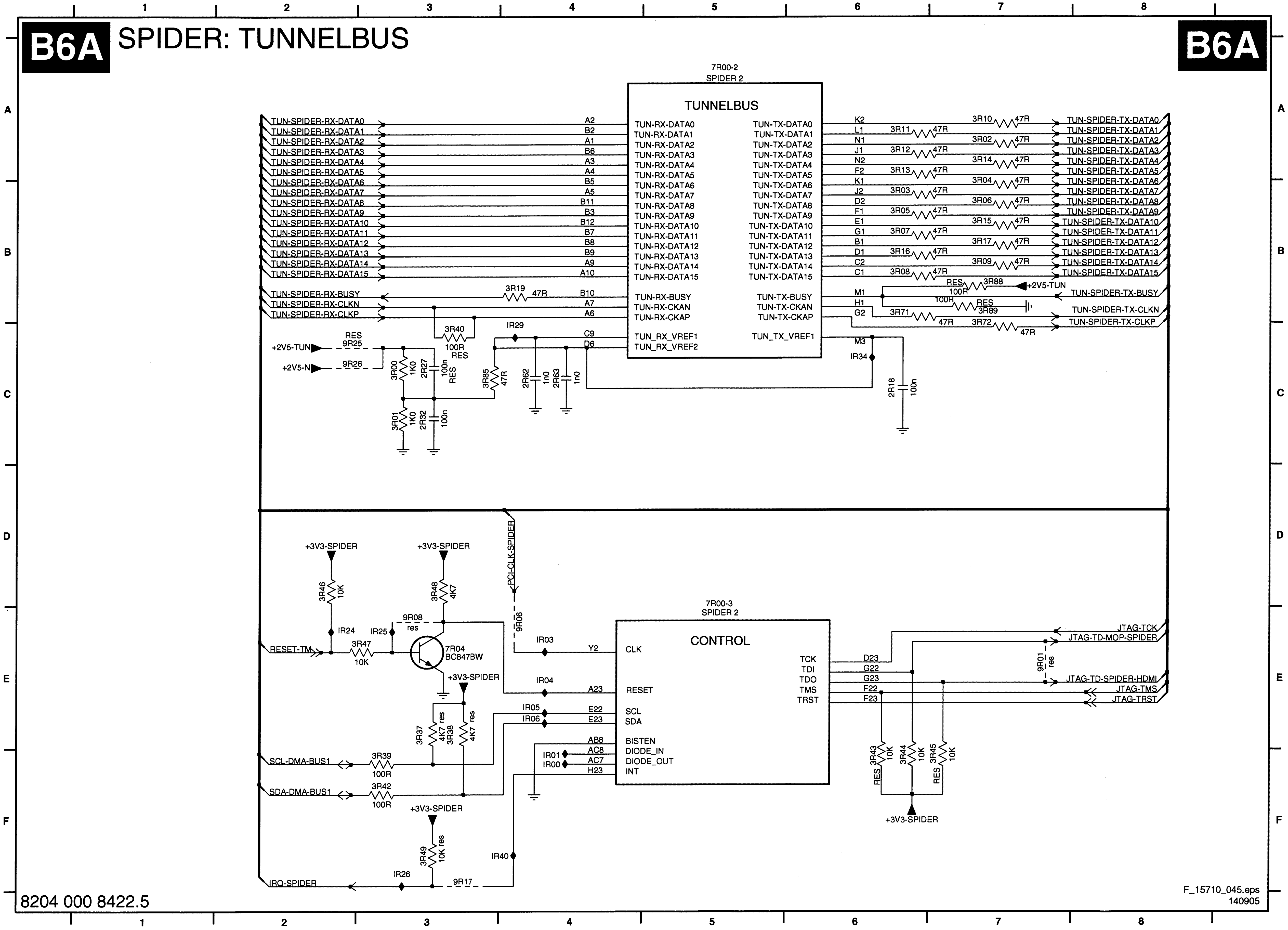
140905

3L81	B2
3L82	B2
3L83	B2
3L84	B2
3L85	B2
3L86	B2
3L87	B2
3L88	B2
3LA0	B6
3LA1	B5
3LA2	B6
3LA3	B5
3LA4	B6
3LA5	B5
3LA6	B6
3LA7	B5
3LA8	C6
3LA9	C5
3LB2	C6
3LB3	C5
3LC8	C6
3LE6	C6
3LG0	C5
3LG1	C6
3LG2	C5
9L10	C5
9L19	C3
9L20	C2
9L21	C3
9L22	C2
9L23	C3
9L24	C2
9L25	C3
9L26	C2
9L27	C2
9L28	C3
9L29	C2
9L30	C3
ILB0	B3
ILB5	C3
ILB6	C3
ILB7	C3

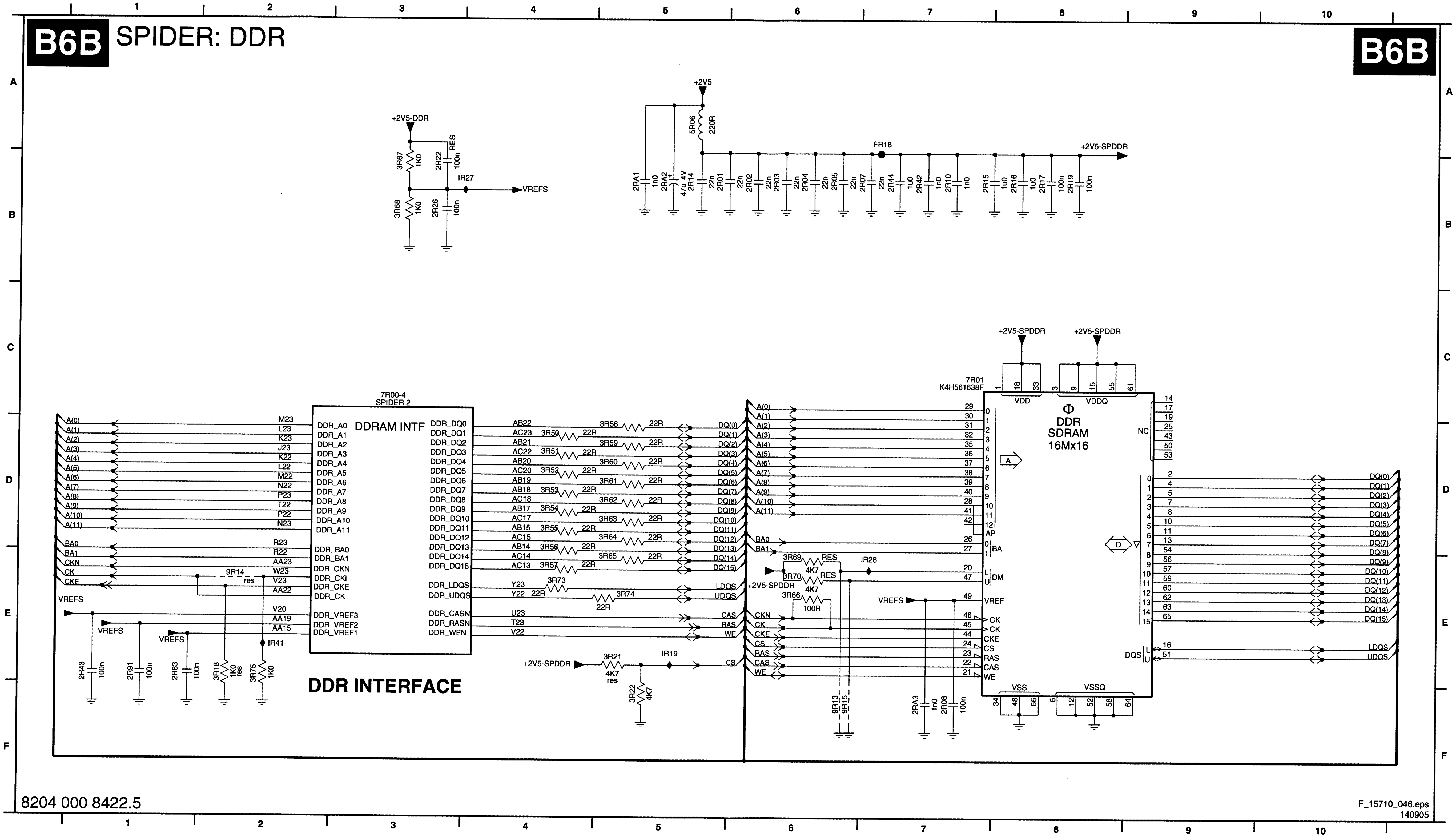
SSB (v2): SPIDER: Tunnel Bus


B6A
SPIDER: TUNNELBUS
B6A
7R00-2
SPIDER 2
TUNNELBUS
TUN-SPIDER-RX-DATA0 … TUN-SPIDER-RX-DATA15
TUN-RX-DATA0 … TUN-RX-DATA15
A2 B2 A1 B6 A3 A4 B5 A5 B11 B3 B12 B7 B8 B9 A9 A10
TUN-SPIDER-RX-BUSY
TUN-SPIDER-RX-CLKN
TUN-SPIDER-RX-CLKP
3R19 47R
B10 A7 A6
TUN-RX-BUSY
TUN-TX-CKAN
TUN-RX-CKAP
TUN_RX_VREF1
TUN_RX_VREF2
C9 D6
IR29
3R40 100R RES
RES 9R25
9R26
+2V5-TUN
+2V5-N
3R00 1K0
2R27 100n RES
3R01 1K0
2R32 100n
3R85 47R
2R62 1n0
2R63 1n0
TUN-TX-DATA0 … TUN-TX-DATA15
K2 L1 N1 J1 N2 F2 K1 J2 D2 F1 E1 G1 B1 D1 C2 C1
3R10 3R11 3R02 3R12 3R14 3R13 3R04 3R03 3R06 3R05 3R15 3R07 3R17 3R16 3R09 3R08 47R
TUN-SPIDER-TX-DATA0 … TUN-SPIDER-TX-DATA15
TUN-TX-BUSY
TUN-TX-CKAN
TUN-TX-CKAP
TUN_TX_VREF1
M1 H1 G2 M3
RES 3R88
+2V5-TUN
100R RES 3R89
3R71 47R
3R72 47R
TUN-SPIDER-TX-BUSY
TUN-SPIDER-TX-CLKN
TUN-SPIDER-TX-CLKP
IR34
2R18 100n
PCI-CLK-SPIDER
+3V3-SPIDER
3R46 10K
3R48 4K7
IR24
IR25
9R08 res
9R06
RESET-TM
3R47 10K
7R04 BC847BW
3R37 4K7 res
3R38 4K7 res
SCL-DMA-BUS1
3R39 100R
SDA-DMA-BUS1
3R42 100R
3R49 10K res
IR40
IRQ-SPIDER
IR26
9R17
7R00-3
SPIDER 2
CONTROL
IR03 Y2 CLK
IR04 A23 RESET
IR05 E22 SCL
IR06 E23 SDA
AB8 BISTEN
IR01 AC8 DIODE_IN
IR00 AC7 DIODE_OUT
H23 INT
TCK TDI TDO TMS TRST
D23 G22 G23 F22 F23
JTAG-TCK
JTAG-TD-MOP-SPIDER
9R01 res
JTAG-TD-SPIDER-HDMI
JTAG-TMS
JTAG-TRST
3R43 10K RES
3R44 10K
3R45 10K RES
1 2 3 4 5 6 7 8
A B C D E F
8204 000 8422.5
F_15710_045.eps
140905

2R18	C6
2R27	C3
2R32	C3
2R62	C4
2R63	C4
3R00	C3
3R01	C3
3R02	A7
3R03	B6
3R04	B7
3R05	B6
3R06	B7
3R07	B6
3R08	B6
3R09	B7
3R10	A7
3R11	A6
3R12	A6
3R13	A6
3R14	A7
3R15	B7
3R16	B6
3R17	B7
3R19	B4
3R37	E3
3R38	E3
3R39	F3
3R40	C3
3R42	F3
3R43	F6
3R44	F6
3R45	F7
3R46	D2
3R47	E3
3R48	D3
3R49	F3
3R71	B6
3R72	C7
3R85	C3
3R88	B7
3R89	B7
7R00-2	A5
7R00-3	D5
7R04	E3
9R01	E7
9R06	E4
9R08	E3
9R17	F3
9R25	C2
9R26	C2
IR00	F4
IR01	F4
IR03	E4
IR04	E4
IR05	E4
IR06	E4
IR24	E2
IR25	E3
IR26	F3
IR29	C4
IR34	C6
IR40	F4

SSB (v2): SPIDER: DDR

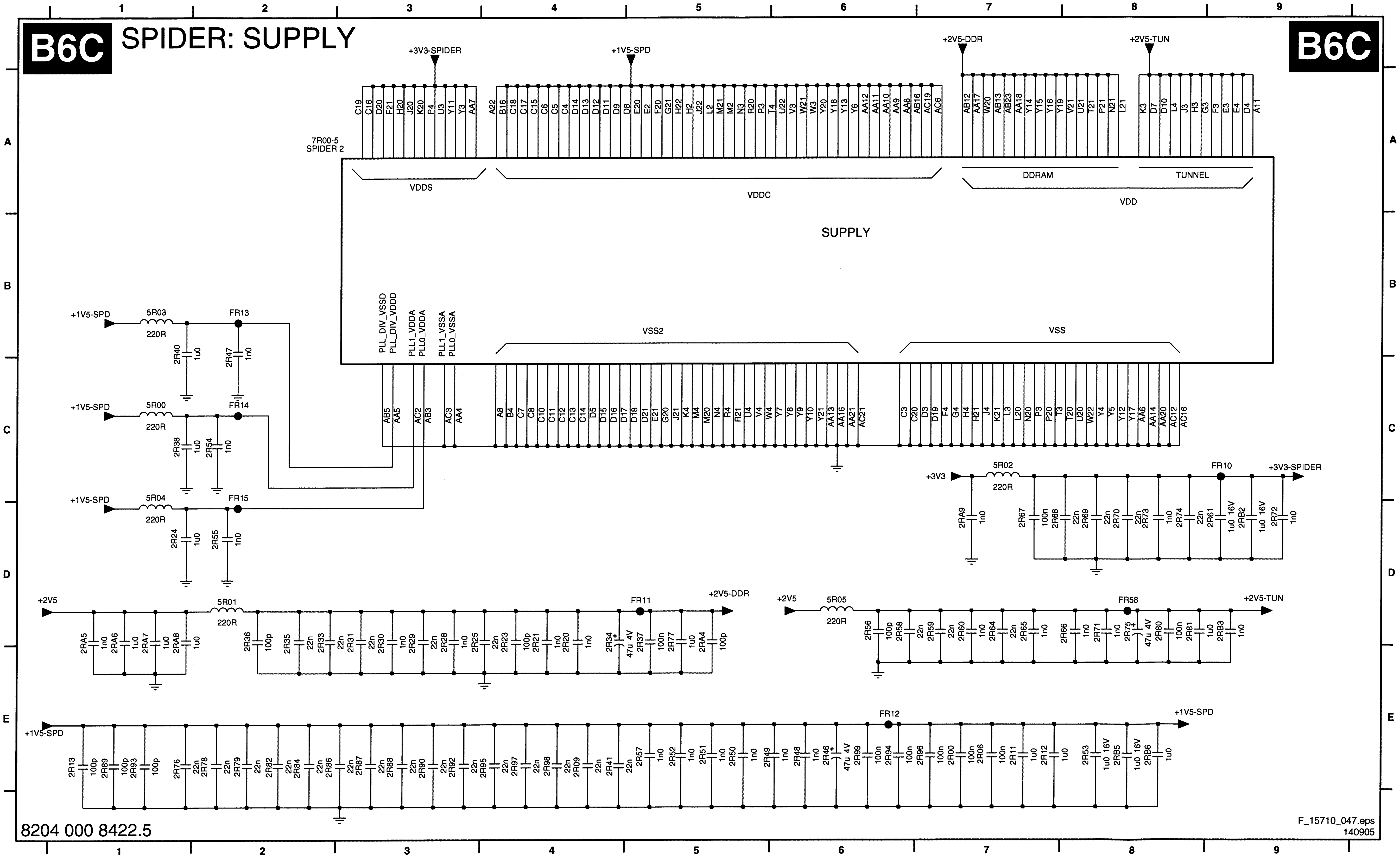
2R01	B5
2R02	B6
2R03	B6
2R04	B6
2R05	B6
2R07	B7
2R08	F7
2R10	B7
2R14	B5
2R15	B7
2R16	B8
2R17	B8
2R19	B8
2R22	B3
2R26	B3
2R42	B7
2R43	E1
2R44	B7
2R83	E1
2R91	E1
2RA1	B5
2RA2	B5
2RA3	F7
3R18	E2
3R21	E5
3R22	F5
3R50	D4
3R51	D4
3R52	D4
3R53	D4
3R54	D4
3R55	D4
3R56	D4
3R57	E4
3R58	D5
3R59	D5
3R60	D5
3R61	D5
3R62	D5
3R63	D5
3R64	D5
3R65	E5
3R66	E6
3R67	B3
3R68	B3
3R69	E6
3R70	E6
3R73	E4
3R74	E5
3R75	E2
5R06	A5
7R00-4	C3
7R01	C7
9R13	F6
9R14	E2
9R15	F6
FR18	A7
IR19	E5
IR27	B3
IR28	E7
IR41	E2



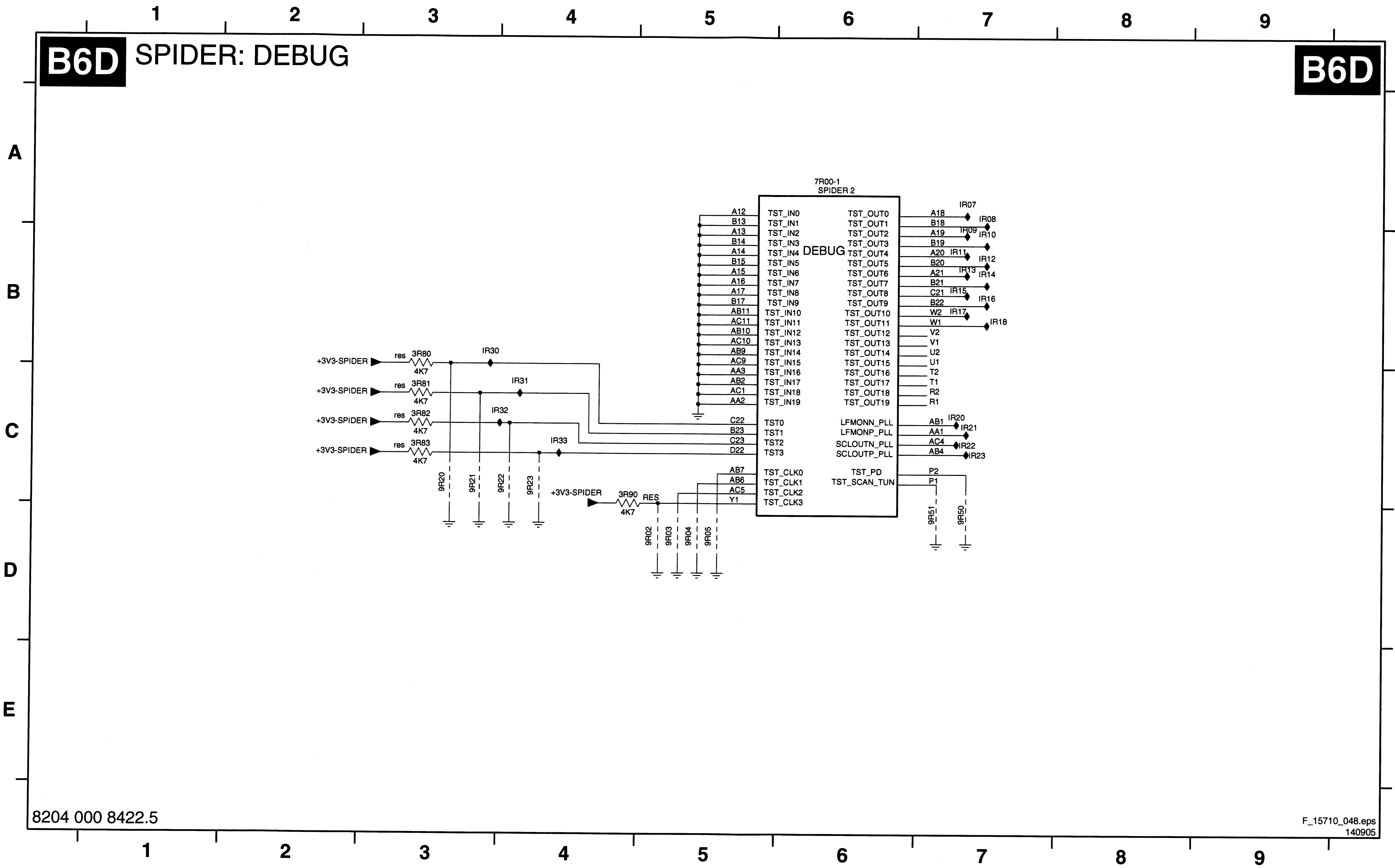
1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
B6B
SPIDER: DDR
B6B
+2V5-DDR
3R67
1K0
2R22
100n
RES
IR27
VREFS
3R68
1K0
2R26
100n
+2V5
5R06
220R
FR18
+2V5-SPDDR
2RA1
1n0
2RA2
47µ 4V
2R14
22n
2R01
22n
2R02
22n
2R03
22n
2R04
22n
2R05
22n
2R07
22n
2R44
1u0
2R42
1n0
2R10
1n0
2R15
1u0
2R16
1u0
2R17
100n
2R19
100n
+2V5-SPDDR
+2V5-SPDDR
7R01
K4H561638F
VDD
VDDQ
Φ
DDR
SDRAM
16Mx16
NC
7R00-4
SPIDER 2
DDRAM INTF
DDR_A0
DDR_A1
DDR_A2
DDR_A3
DDR_A4
DDR_A5
DDR_A6
DDR_A7
DDR_A8
DDR_A9
DDR_A10
DDR_A11
DDR_BA0
DDR_BA1
DDR_CKN
DDR_CKI
DDR_CKE
DDR_CK
DDR_VREF3
DDR_VREF2
DDR_VREF1
DDR_DQ0
DDR_DQ1
DDR_DQ2
DDR_DQ3
DDR_DQ4
DDR_DQ5
DDR_DQ6
DDR_DQ7
DDR_DQ8
DDR_DQ9
DDR_DQ10
DDR_DQ11
DDR_DQ12
DDR_DQ13
DDR_DQ14
DDR_DQ15
DDR_LDQS
DDR_UDQS
DDR_CASN
DDR_RASN
DDR_WEN
M23
L23
K23
J23
K22
L22
M22
N22
P23
T22
P22
N23
R23
R22
AA23
W23
V23
AA22
V20
AA19
AA15
AB22
AC23
AB21
AC22
AB20
AC20
AB19
AB18
AC18
AB17
AC17
AB15
AC15
AB14
AC14
AC13
Y23
Y22
U23
T23
V22
3R58
3R50
3R59
3R51
3R60
3R52
3R61
3R53
3R62
3R54
3R63
3R55
3R64
3R56
3R65
3R57
22R
3R73
3R74
A(0)
A(1)
A(2)
A(3)
A(4)
A(5)
A(6)
A(7)
A(8)
A(9)
A(10)
A(11)
BA0
BA1
CKN
CK
CKE
9R14
res
VREFS
VREFS
VREFS
IR41
2R43
100n
2R91
100n
2R83
100n
3R18
1K0
res
3R75
1K0
DDR INTERFACE
DQ(0)
DQ(1)
DQ(2)
DQ(3)
DQ(4)
DQ(5)
DQ(6)
DQ(7)
DQ(8)
DQ(9)
DQ(10)
DQ(11)
DQ(12)
DQ(13)
DQ(14)
DQ(15)
LDQS
UDQS
CAS
RAS
WE
CS
+2V5-SPDDR
3R21
4K7
res
IR19
3R22
4K7
3R69
RES
4K7
IR28
3R70
RES
+2V5-SPDDR
4K7
3R66
100R
CKN
CK
CKE
CS
RAS
CAS
WE
9R13
9R15
VREFS
2RA3
1n0
2R08
100n
AP
BA
DM
VREF
CK
CK
CKE
CS
RAS
CAS
WE
VSS
VSSQ
DQS
L
U
A
D
8204 000 8422.5
F_15710_046.eps
140905

SSB (v2): SPIDER: Supply

2R00 E7
2R06 E7
2R09 E4
2R11 E7
2R12 E7
2R13 E1
2R20 D4
2R21 D4
2R23 D4
2R24 D1
2R25 D3
2R28 D3
2R29 D3
2R30 D3
2R31 D3
2R33 D2
2R34 D4
2R35 D2
2R36 D2
2R37 D5
2R38 C1
2R40 B1
2R41 E4
2R46 E6
2R47 B2
2R48 E6
2R49 E5
2R50 E5
2R51 E5
2R52 E5
2R53 E8
2R54 C2
2R55 D2
2R56 D6
2R57 E5
2R58 D6
2R59 D7
2R60 D7
2R61 D9
2R64 D7
2R65 D7
2R66 D8
2R67 D7
2R68 D7
2R69 D8
2R70 D8
2R71 D8
2R72 D9
2R73 D8
2R74 D8
2R75 D8
2R76 E1
2R77 D5
2R78 E2
2R79 E2
2R80 D8
2R81 D8
2R82 E2
2R84 E2
2R86 E2
2R87 E3
2R88 E3
2R89 E1
2R90 E3
2R92 E3
2R93 E1
2R94 E6
2R95 E4
2R96 E7
2R97 E4
2R98 E4
2R99 E6
2RA4 D5
2RA5 D1
2RA6 D1
2RA7 D1
2RA8 D1
2RA9 D7
2RB2 D9
2RB3 D9
2RB5 E8
2RB6 E8
5R00 C1
5R01 D2
5R02 C7
5R03 B1
5R04 C1
5R05 D6
7R00-5 A2
FR10 C9
FR11 D5
FR12 E6
FR13 B2
FR14 C2
FR15 C2
FR58 D8


B6C
SPIDER: SUPPLY
B6C
+3V3-SPIDER
+1V5-SPD
+2V5-DDR
+2V5-TUN
7R00-5
SPIDER 2
VDDS
VDDC
DDRAM
TUNNEL
VDD
SUPPLY
PLL_DIV_VSSD
PLL_DIV_VDDD
PLL1_VDDA
PLL0_VDDA
PLL1_VSSA
PLL0_VSSA
VSS2
VSS
+1V5-SPD
5R03
220R
FR13
2R40
1u0
2R47
1n0
+1V5-SPD
5R00
220R
FR14
2R38
1u0
2R54
1n0
+1V5-SPD
5R04
220R
FR15
2R24
1u0
2R55
1n0
+3V3
5R02
220R
FR10
+3V3-SPIDER
2RA9
2R67
2R68
2R69
2R70
2R73
2R74
2R61
2RB2
2RB3
2R72
+2V5
5R01
220R
FR11
+2V5-DDR
2RA5
2RA6
2RA7
2RA8
2R36
2R35
2R33
2R31
2R30
2R29
2R28
2R25
2R23
2R21
2R20
2R34
47u 4V
2R37
2R77
2RA4
+2V5
5R05
220R
FR58
+2V5-TUN
2R56
2R58
2R59
2R60
2R64
2R65
2R66
2R71
2R75
2R80
2R81
2RB3
FR12
+1V5-SPD
+1V5-SPD
2R13
2R89
2R93
2R76
2R78
2R79
2R82
2R84
2R86
2R87
2R88
2R90
2R92
2R95
2R97
2R98
2R09
2R41
2R57
2R52
2R51
2R50
2R49
2R48
2R46
2R99
2R94
2R96
2R00
2R06
2R11
2R12
2R53
2RB5
2RB6
1u0 16V
8204 000 8422.5
F_15710_047.eps
140905

SSB (v2): SPIDER: Debug


B6D
SPIDER: DEBUG
B6D
7R00-1
SPIDER 2
DEBUG
A12 TST_IN0
B13 TST_IN1
A13 TST_IN2
B14 TST_IN3
A14 TST_IN4
B15 TST_IN5
A15 TST_IN6
A16 TST_IN7
A17 TST_IN8
B17 TST_IN9
AB11 TST_IN10
AC11 TST_IN11
AB10 TST_IN12
AC10 TST_IN13
AB9 TST_IN14
AC9 TST_IN15
AA3 TST_IN16
AB2 TST_IN17
AC1 TST_IN18
AA2 TST_IN19
C22 TST0
B23 TST1
C23 TST2
D22 TST3
AB7 TST_CLK0
AB6 TST_CLK1
AC5 TST_CLK2
Y1 TST_CLK3
TST_OUT0 A18 IR07
TST_OUT1 B18 IR08
TST_OUT2 A19 IR09
TST_OUT3 B19 IR10
TST_OUT4 A20 IR11
TST_OUT5 B20 IR12
TST_OUT6 A21 IR13
TST_OUT7 B21 IR14
TST_OUT8 C21 IR15
TST_OUT9 B22 IR16
TST_OUT10 W2 IR17
TST_OUT11 W1 IR18
TST_OUT12 V2
TST_OUT13 V1
TST_OUT14 U2
TST_OUT15 U1
TST_OUT16 T2
TST_OUT17 T1
TST_OUT18 R2
TST_OUT19 R1
LFMONN_PLL AB1 IR20
LFMONP_PLL AA1 IR21
SCLOUTN_PLL AC4 IR22
SCLOUTP_PLL AB4 IR23
TST_PD P2
TST_SCAN_TUN P1
9R51
9R50
+3V3-SPIDER res 3R80 4K7 IR30
+3V3-SPIDER res 3R81 4K7 IR31
+3V3-SPIDER res 3R82 4K7 IR32
+3V3-SPIDER res 3R83 4K7 IR33
9R20
9R21
9R22
9R23
+3V3-SPIDER 3R90 4K7 RES
9R02
9R03
9R04
9R05
1
2
3
4
5
6
7
8
9
A
B
C
D
E
8204 000 8422.5
F_15710_048.eps
140905

3R80	B3
3R81	C3
3R82	C3
3R83	C3
3R90	C4
7R00-1	A6
9R02	D5
9R03	D5
9R04	D5
9R05	D5
9R20	C3
9R21	C3
9R22	C3
9R23	C4
9R50	D7
9R51	D7
IR07	A7
IR08	A7
IR09	B7
IR10	B7
IR11	B7
IR12	B7
IR13	B7
IR14	B7
IR15	B7
IR16	B7
IR17	B7
IR18	B7
IR20	C7
IR21	C7
IR22	C7
IR23	C7
IR30	B3
IR31	C4
IR32	C4
IR33	C4

SSB (v2): VIPER: Control

1H00	A3
1H01	F15
2H06	H9
2H07	H10
2H08	A3
2H09	A3
2Q01	F12
2Q41	C2
2Q67	E13
2Q69	F13
2Q70	F14
3H00	C2
3H01	C2
3H02	D5
3H03	D4
3H04	G8
3H05	G8
3H08	D4
3H09	D2
3H10	D2
3H11	D2
3H13	D2
3H14-1	D9
3H14-2	D9
3H14-3	D9
3H14-4	D9
3H15	D2
3H16	D4
3H17-1	D9
3H17-2	D9
3H17-3	D9
3H29	E3
3H31	E3
3H33	C2
3H67	G9
3H69	G10
3H70	E9
3H71	C2
3H72	D8
3H73	A8
3H74	A8
3H75	A4
3H79	A8
3H82	A3
3H83	E2
3H84	E9
3H86	E9
3H87	E2
3H88	E9
3H89	E12
3H90	B1
3H93	E9
3H94	H8
3H95	H8
3H97	F1
3H98	B5
3H99	B5
3Q10	B5
3Q11	A5
3Q12	B5
3Q13	B5
3Q14	B5
3Q15	B5
3Q16	H12
3Q17	H12
3Q18	H12
3Q19	H12
3Q20	G12
3Q21	H12
3Q22	H12
3Q23	H12
3Q24	E11
3Q25	F12
3Q26	C4
3Q27	B1
3Q28	C3
3Q29	E13
3Q30	E13
3Q31	B3
3Q32	B3
3Q70	C1
5H01	H13
5H02	H13
5H03	F13
5H04	F14
6H00	H8
6H01	E1
6H03	F1
6H04-1	H14
6H04-2	H13
6H05-1	G13
6H05-2	G13
7Q01	F12
7V00-5	A6
9H01	D11
9H02	D2
9H03	B5
9H04	B2
9H05	F5
9H06	E5
9H07	C2
9H08	C2
9H10	E2
9H11	E2
9H12	F5
9H13	F5
9H14	F5
9H15	F5
9H16	B5
9H17	F8
9H21	F8
9H22	D11
9H23	D11
9H24	D11
9H25	D13
9H28	D13
9H30	E2
9H31	D13
9H35	D13
9Q06	E11
9Q07	E11
9Q08	F11
9Q09	F11
AH10	A8
AH11	B3
FH12	H8
FQ00	G15
FQ01	G15
FQ02	G15
FQ04	G15
FQ05	G15
FQ06	G15
FQ09	G14
FQ30	G8
FQ31	G8
IH02	E4
IH09	D1
IQ03	G12
IQ04	H12
IQ05	H12
IQ06	H12
IQ11	F7
IQ12	F8
IQ13	E12
IQ14	F7
IQ15	F12
IQ16	F12
IQ17	F13
IQ21	F13
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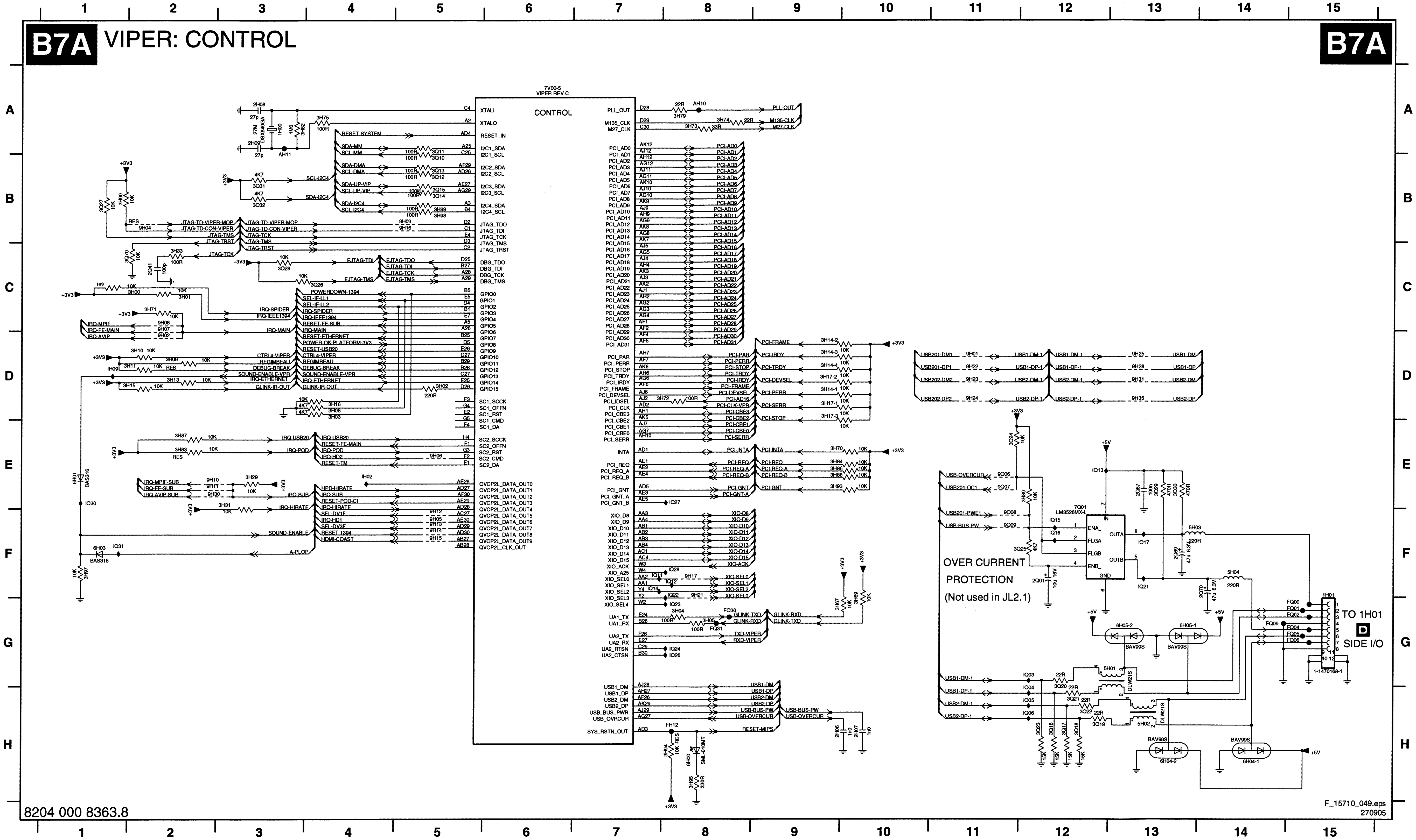
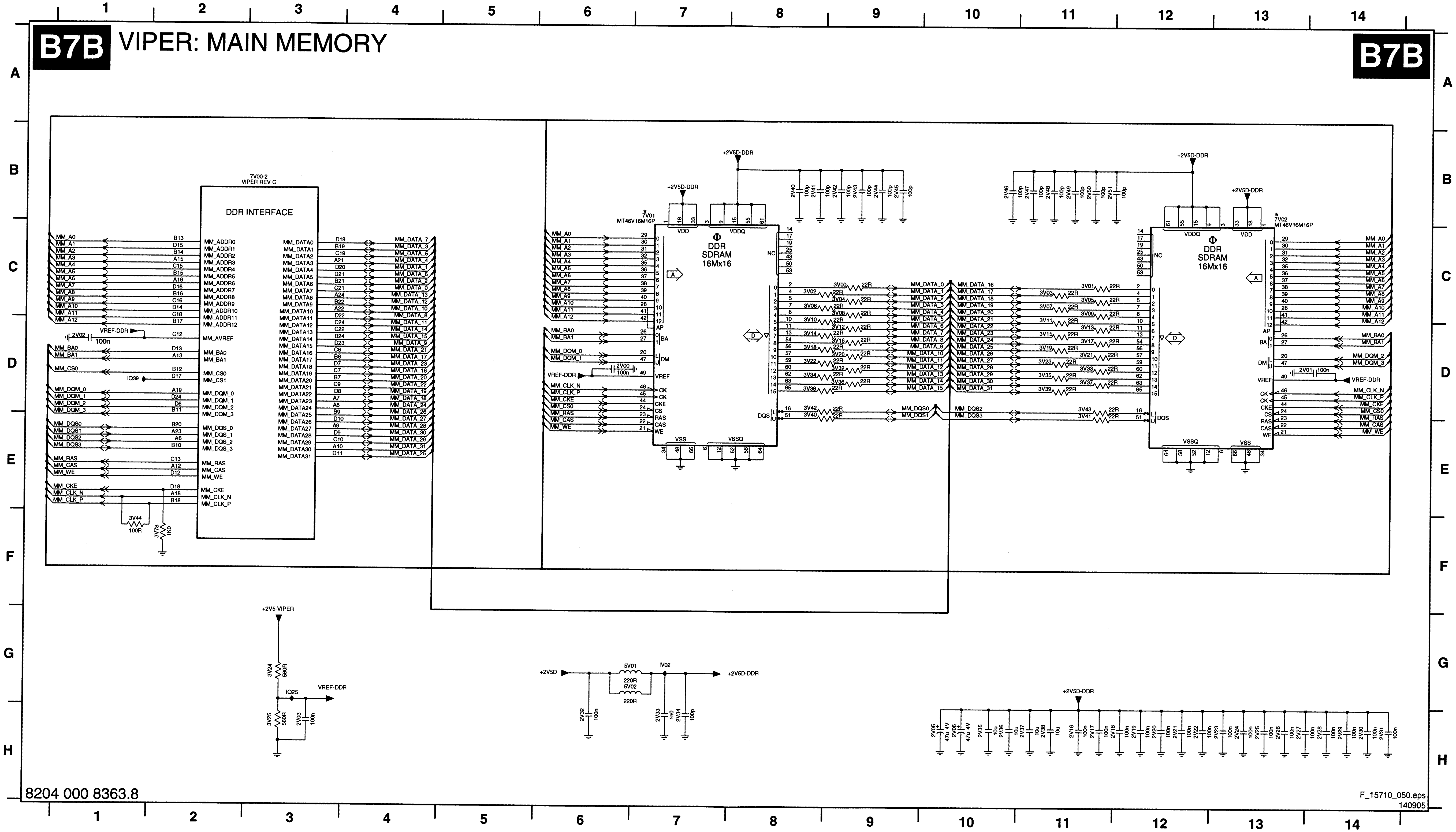
IQ24	G8
IQ26	G8
IQ27	E8
IQ28	F8
IQ30	E1
IQ31	F1


B7A
VIPER: CONTROL
B7A
7V00-5
VIPER REV C
CONTROL
OVER CURRENT
PROTECTION
(Not used in JL2.1)
7Q01
LM3526MX-L
TO 1H01
D
SIDE I/O
8204 000 8363.8
F_15710_049.eps
270905

SSB (v2): VIPER: Main Memory

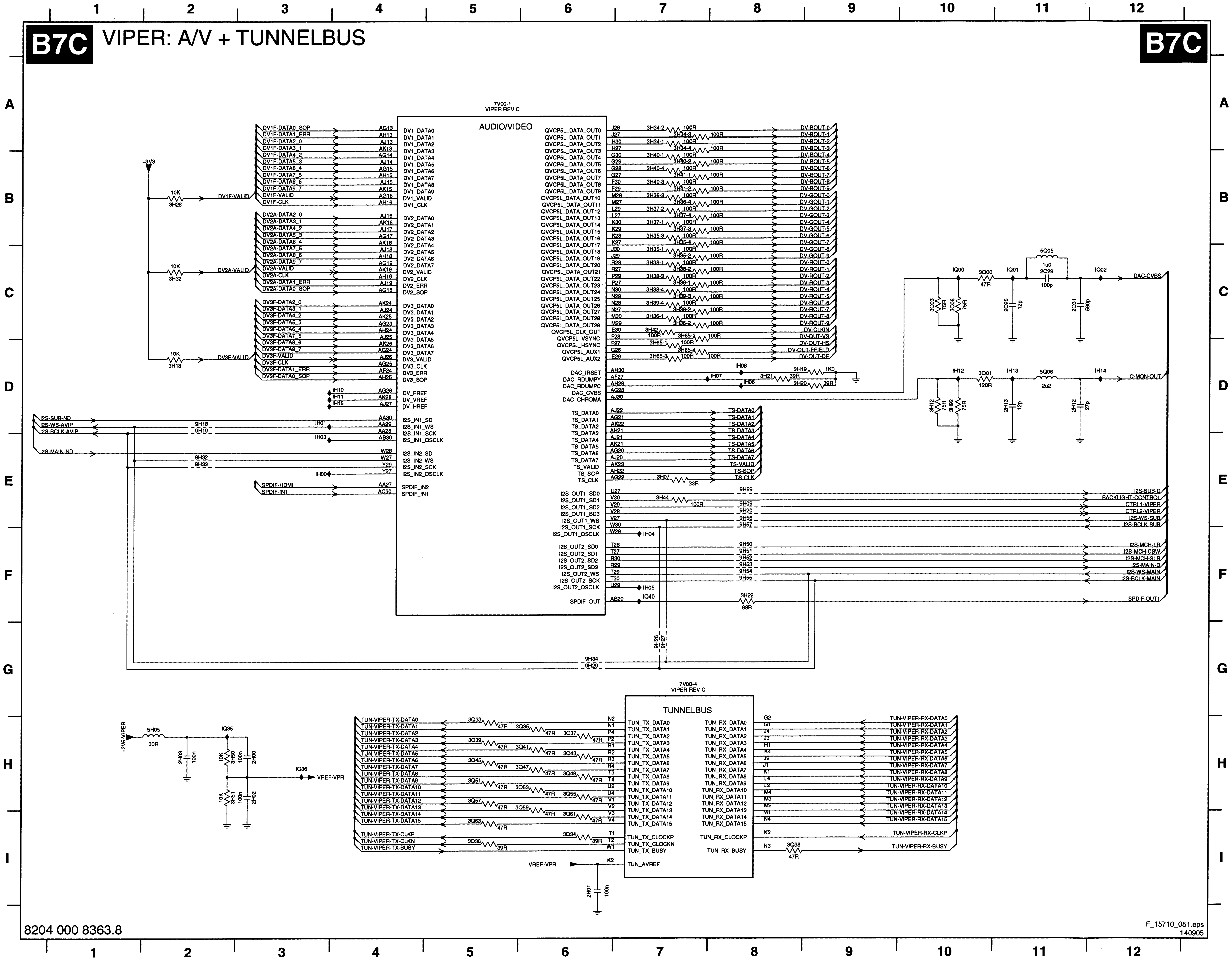
2V00	D6
2V01	D13
2V02	D1
2V03	H3
2V05	H10
2V06	H10
2V16	H11
2V17	H11
2V18	H12
2V19	H12
2V20	H12
2V21	H12
2V22	H12
2V23	H13
2V24	H13
2V25	H13
2V26	H13
2V27	H13
2V28	H14
2V29	H14
2V30	H14
2V31	H14
2V32	H6
2V33	H7
2V34	H7
2V35	H10
2V36	H10
2V37	H11
2V38	H11
2V40	B8
2V41	B8
2V42	B9
2V43	B9
2V44	B9
2V45	B9
2V46	B10
2V47	B11
2V48	B11
2V49	B11
2V50	B11
2V51	B11
3V00	C9
3V01	C11
3V02	C8
3V03	C11
3V04	C9
3V05	C11
3V06	C8
3V07	C11
3V08	C9
3V09	C11
3V10	D8
3V11	D11
3V12	D9
3V13	D11
3V14	D8
3V15	D11
3V16	D9
3V17	D11
3V18	D8
3V19	D11
3V20	D9
3V21	D11
3V22	D8
3V23	D11
3V24	G3
3V25	H3
3V32	D9
3V33	D11
3V34	D8
3V35	D11
3V36	D9
3V37	D11
3V38	D8
3V39	D11
3V40	D8
3V41	D11
3V42	D8
3V43	D11
3V44	F1
3V78	F2
5V01	G7
5V02	G7
7V00-2	B3
7V01	B7
7V02	B13
IQ25	G3
IQ39	D1
IV02	G7


B7B
VIPER: MAIN MEMORY
B7B
7V00-2
VIPER REV C
DDR INTERFACE
MM_ADDR0
MM_AVREF
MM_CS0
MM_CS1
MM_DQM_0
MM_DQS_0
MM_RAS
MM_CAS
MM_WE
MM_CKE
MM_CLK_N
MM_CLK_P
MM_DATA0
MM_DATA31
VREF-DDR
2V02
100n
IQ39
3V44
100R
3V78
1K0
+2V5D-DDR
7V01
MT46V16M16P
DDR
SDRAM
16Mx16
VDD
VDDQ
VSS
VSSQ
NC
BA
DM
VREF
CK
CKE
CS
RAS
CAS
WE
DQS
AP
2V00
100n
7V02
MT46V16M16P
2V01
100n
22R
MM_DATA_0
MM_DATA_16
MM_DQS0
MM_DQS1
MM_DQS2
MM_DQS3
+2V5-VIPER
3V24
560R
IQ25
VREF-DDR
3V25
560R
2V03
100n
+2V5D
5V01
220R
5V02
220R
IV02
+2V5D-DDR
2V32
100n
2V33
1n0
2V34
100p
2V05
47u 4V
2V06
47u 4V
10u
100n
1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H

8204 000 8363.8

F_15710_050.eps
140905

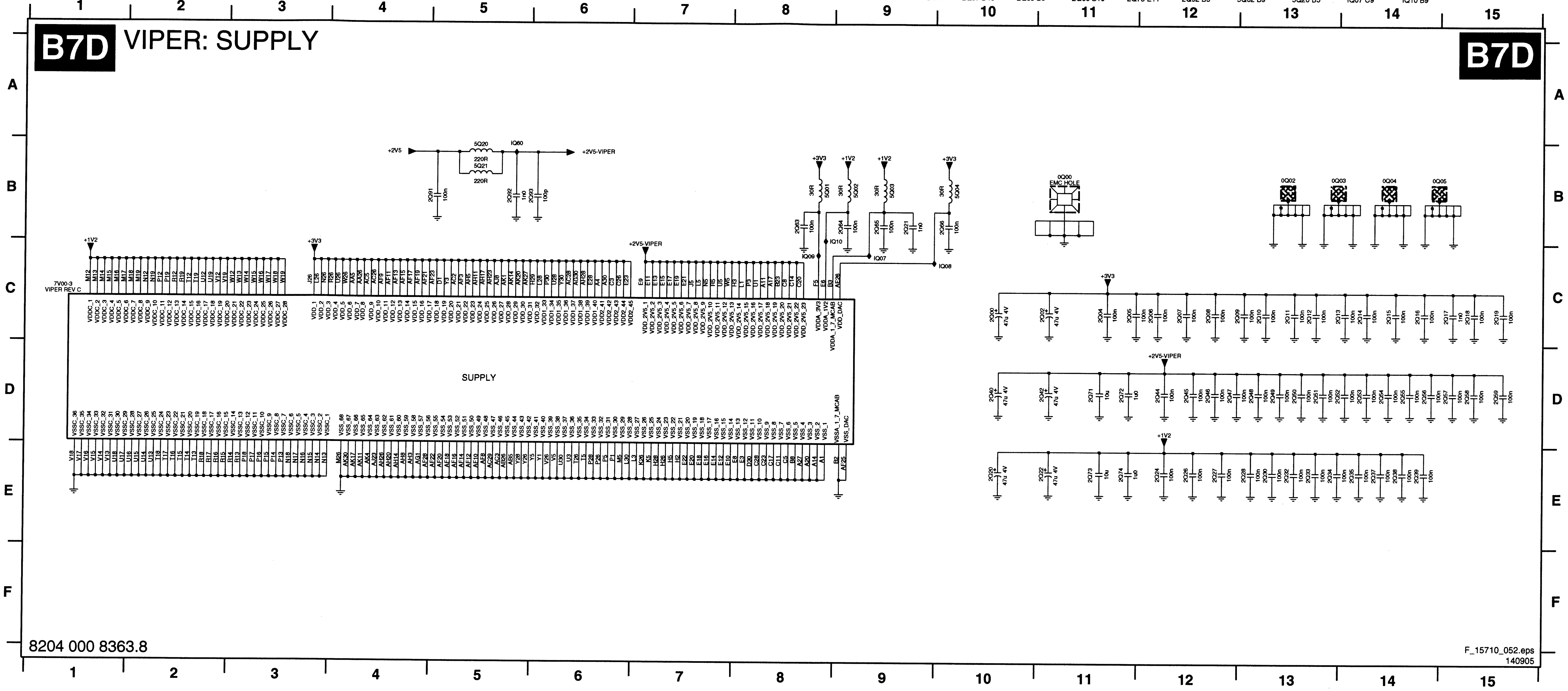
SSB (v2): VIPER: A/V + Tunnel Bus


B7C
VIPER: A/V + TUNNELBUS
7V00-1
VIPER REV C
AUDIO/VIDEO
+3V3
DV1F-VALID
DV2A-VALID
DV3F-VALID
I2S-SUB-ND
I2S-WS-AVIP
I2S-BCLK-AVIP
I2S-MAIN-ND
SPDIF-HDMI
SPDIF-IN1
DAC-CVBS
C-MON-OUT
I2S-SUB-D
BACKLIGHT-CONTROL
CTRL1-VIPER
CTRL2-VIPER
I2S-WS-SUB
I2S-BCLK-SUB
I2S-MCH-LR
I2S-MCH-CSW
I2S-MCH-SLR
I2S-MAIN-D
I2S-WS-MAIN
I2S-BCLK-MAIN
SPDIF-OUT1
7V00-4
VIPER REV C
TUNNELBUS
+2V5-VIPER
VREF-VPR
TUN-VIPER-TX-CLKP
TUN-VIPER-TX-CLKN
TUN-VIPER-TX-BUSY
TUN-VIPER-RX-CLKP
TUN-VIPER-RX-BUSY
TUN_AVREF
8204 000 8363.8
F_15710_051.eps
140905

2H00	H3
2H01	I6
2H02	H3
2H03	H2
2H12	D11
2H13	D11
2Q25	C11
2Q29	C11
2Q31	C11
3H07	E7
3H12	D10
3H18	D2
3H19	D8
3H20	D8
3H21	D8
3H22	F8
3H28	B2
3H32	C2
3H34-1	A7
3H34-2	A7
3H34-3	A7
3H34-4	A7
3H35-1	C7
3H35-2	C7
3H35-3	B7
3H35-4	B7
3H36-1	C7
3H36-2	C7
3H36-3	B7
3H36-4	B7
3H37-1	B7
3H37-2	B7
3H37-3	B7
3H37-4	B7
3H38-1	C7
3H38-2	C7
3H38-3	C7
3H38-4	C7
3H39-1	C7
3H39-2	C7
3H39-3	C7
3H39-4	C7
3H40-1	B7
3H40-2	B7
3H40-3	B7
3H40-4	B7
3H41-1	B7
3H41-2	B7
3H42	C7
3H44	E7
3H50	H2
3H51	H2
3H65-1	D7
3H65-2	C7
3H65-3	D7
3H65-4	D7
3H92	D10
3Q00	C10
3Q01	D10
3Q03	C10
3Q06	C10
3Q33	H5
3Q34	I6
3Q35	H6
3Q36	I5
3Q37	H6
3Q38	I8
3Q39	H5
3Q41	H6
3Q43	H6
3Q45	H5
3Q47	H6
3Q49	H6
3Q51	H5
3Q53	H6
3Q55	H6
3Q57	H5
3Q59	H6
3Q61	I6
3Q63	I5
5H05	H2
5Q05	C11
5Q06	D11
7V00-1	A5
7V00-4	G7
9H09	E8
9H18	D2
9H19	D2
9H20	E8
9H26	G7
9H27	G7
9H29	G6
9H32	E2
9H33	E2
9H34	G6
9H50	F8
9H51	F8
9H52	F8
9H53	F8
9H54	F8
9H55	F8
9H56	E8
9H57	E8
9H59	E8
IH00	E3
IH01	D3
IH03	E3
IH04	F7
IH05	F7
IH06	D8
IH07	D8
IH08	D8
IH10	D4
IH11	D4
IH12	D10
IH13	D11
IH14	D12
IH15	D4
IQ00	C10
IQ01	C11
IQ02	C12
IQ35	H2
IQ36	H3
IQ40	F7

SSB (v2): VIPER: Supply

0Q00	B11
0Q02	B13
0Q03	B13
0Q04	B14
0Q05	B14
2Q00	C10
2Q02	C11
2Q04	C11
2Q05	C11
2Q06	C12
2Q07	C12
2Q08	C12
2Q09	C13
2Q10	C13
2Q11	C13
2Q12	C13
2Q13	C14
2Q14	C14
2Q15	C14
2Q16	C14
2Q17	C15
2Q18	C15
2Q19	C15
2Q20	E10
2Q21	B9
2Q22	E11
2Q24	E12
2Q26	E12
2Q27	E12
2Q28	E13
2Q30	E13
2Q32	E13
2Q33	E13
2Q34	E13
2Q35	E14
2Q37	E14
2Q38	E14
2Q39	E14
2Q40	D10
2Q42	D11
2Q44	D12
2Q45	D12
2Q46	D12
2Q47	D12
2Q48	D13
2Q49	D13
2Q50	D13
2Q51	D13
2Q52	D14
2Q53	D14
2Q54	D14
2Q55	D14
2Q56	D14
2Q57	D15
2Q58	D15
2Q59	D15
2Q63	B8
2Q64	B9
2Q65	B9
2Q66	B10
2Q71	D11
2Q72	D11
2Q73	E11
2Q74	E11
2Q91	B5
2Q92	B5
2Q93	B6
5Q01	B8
5Q02	B9
5Q03	B9
5Q04	B10
5Q20	B5
5Q21	B5
7V00-3	C1
IQ07	C9
IQ08	C10
IQ09	C8
IQ10	B9
IQ60	B5


1
2
3
4
5
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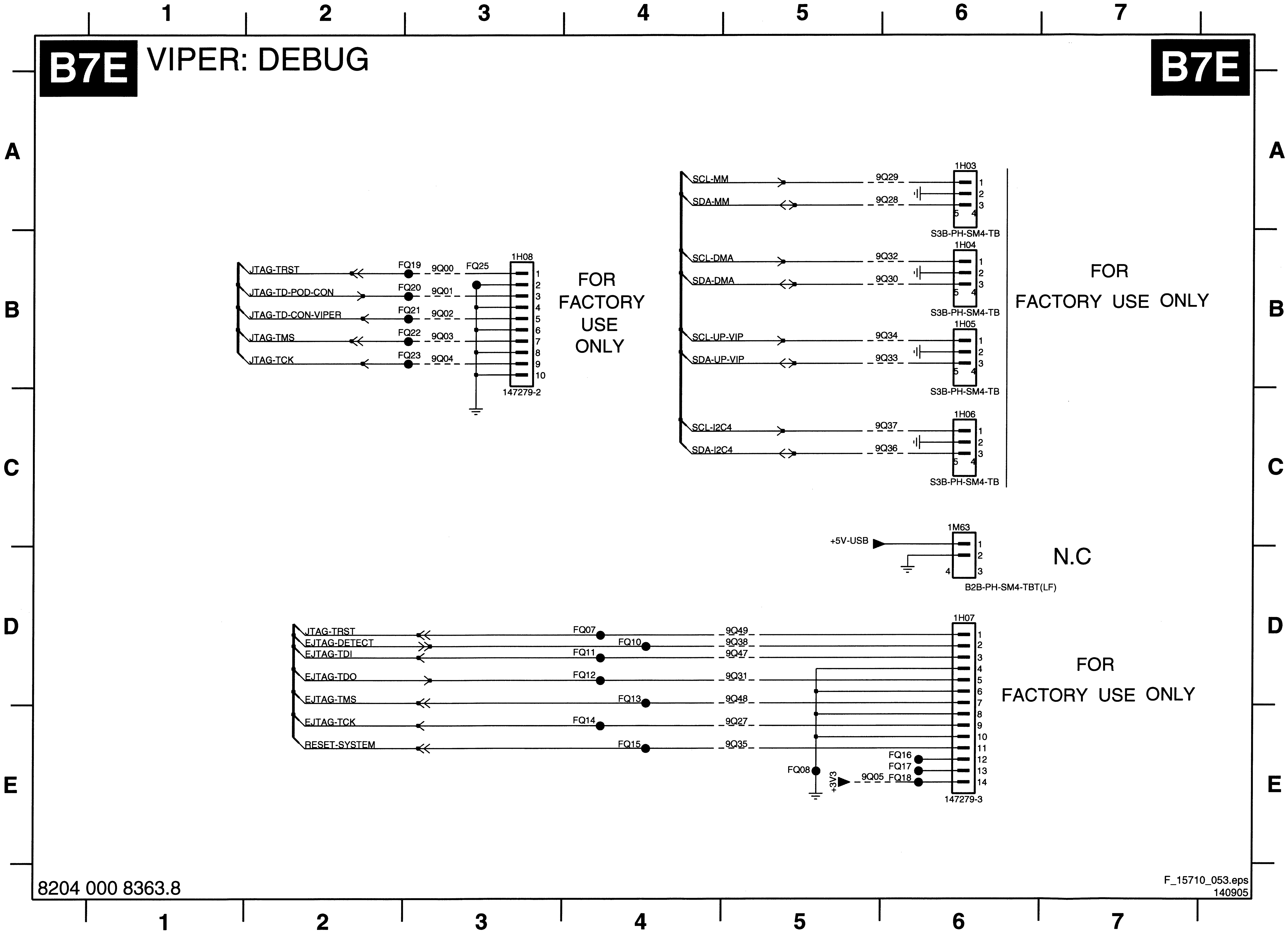
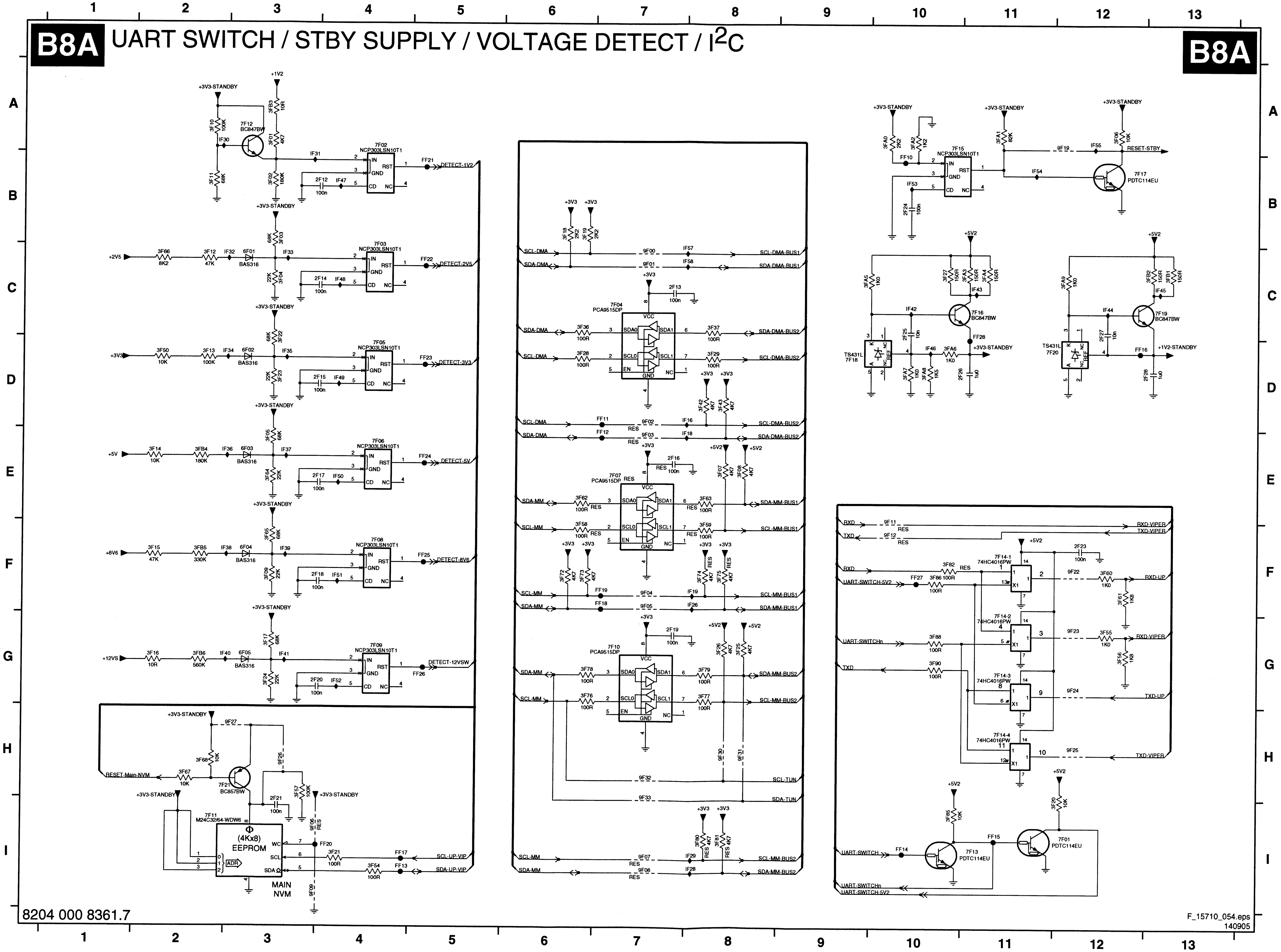
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
B7D
VIPER: SUPPLY
B7D
+2V5
5Q20
220R
5Q21
220R
IQ60
+2V5-VIPER
2Q91 100n
2Q92 1n0
2Q93 100p
+3V3
+1V2
+1V2
+3V3
5Q01 30R
5Q02 30R
5Q03 30R
5Q04 30R
2Q63 100n
2Q64 100n
2Q65 100n
2Q21 1n0
2Q66 100n
IQ09
IQ10
IQ07
IQ08
0Q00
EMC HOLE
0Q02
0Q03
0Q04
0Q05
+1V2
+3V3
+2V5-VIPER
7V00-3
VIPER REV C
SUPPLY
VDDA_3V3
VDDA_1V2
VDDA_1_7_MCAB
VDD_DAC
VSSA_1_7_MCAB
VSS_DAC
+3V3
2Q00 47u 4V
2Q02 47u 4V
+2V5-VIPER
2Q40 47u 4V
2Q42 47u 4V
2Q71 10u
2Q72 1u0
+1V2
2Q20 47u 4V
2Q22 47u 4V
2Q73 10u
2Q74 1u0
8204 000 8363.8
F_15710_052.eps
140905

SSB (v2): VIPER: Debug


B7E
VIPER: DEBUG
B7E
JTAG-TRST
JTAG-TD-POD-CON
JTAG-TD-CON-VIPER
JTAG-TMS
JTAG-TCK
FQ19
FQ20
FQ21
FQ22
FQ23
9Q00
9Q01
9Q02
9Q03
9Q04
FQ25
1H08
147279-2
FOR FACTORY USE ONLY
SCL-MM
SDA-MM
9Q29
9Q28
1H03
S3B-PH-SM4-TB
SCL-DMA
SDA-DMA
9Q32
9Q30
1H04
S3B-PH-SM4-TB
SCL-UP-VIP
SDA-UP-VIP
9Q34
9Q33
1H05
S3B-PH-SM4-TB
SCL-I2C4
SDA-I2C4
9Q37
9Q36
1H06
S3B-PH-SM4-TB
FOR FACTORY USE ONLY
+5V-USB
1M63
B2B-PH-SM4-TBT(LF)
N.C
JTAG-TRST
EJTAG-DETECT
EJTAG-TDI
EJTAG-TDO
EJTAG-TMS
EJTAG-TCK
RESET-SYSTEM
FQ07
FQ10
FQ11
FQ12
FQ13
FQ14
FQ15
9Q49
9Q38
9Q47
9Q31
9Q48
9Q27
9Q35
FQ08
+3V3
9Q05
FQ16
FQ17
FQ18
1H07
147279-3
FOR FACTORY USE ONLY
8204 000 8363.8
F_15710_053.eps
140905

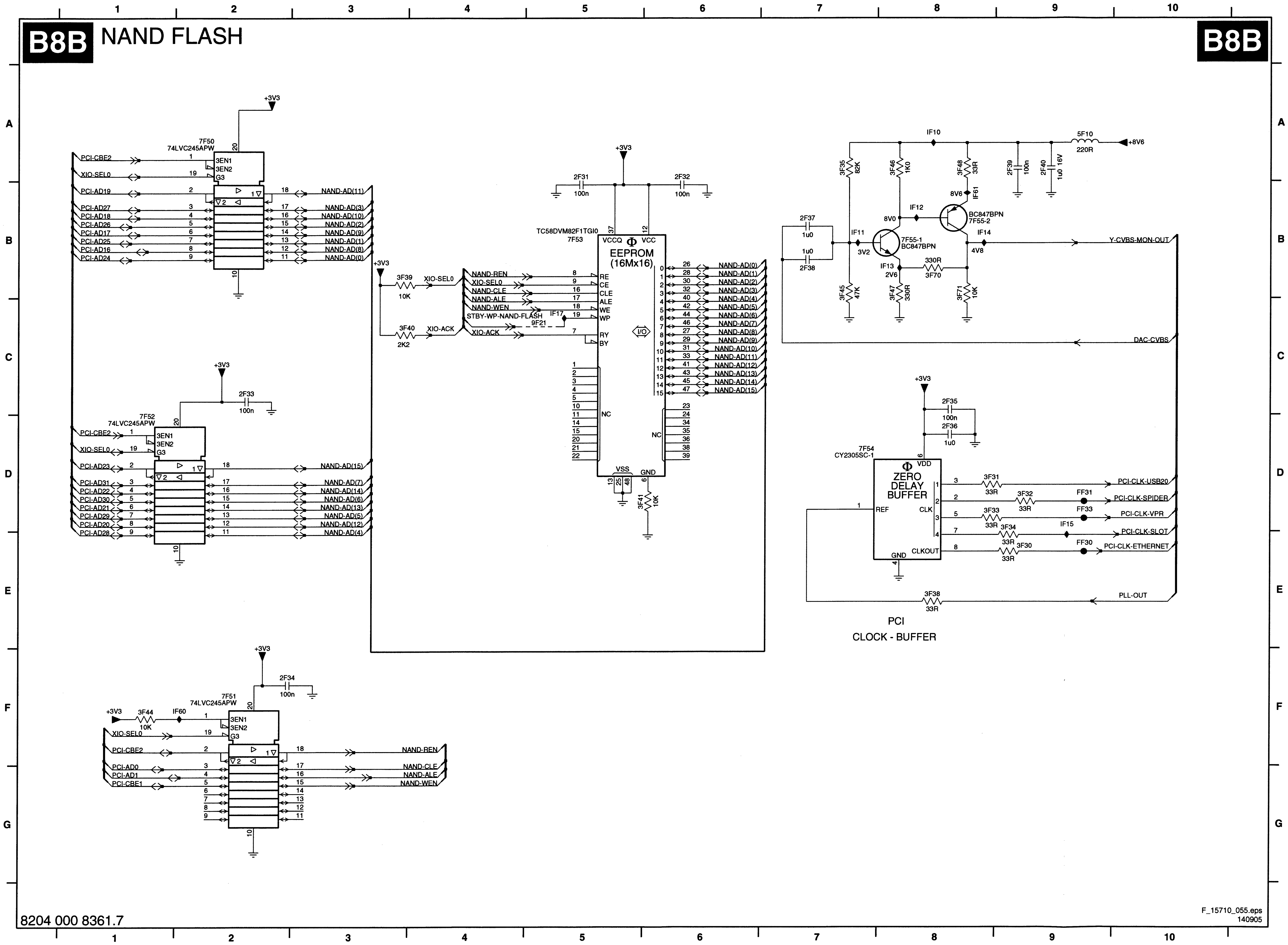
1H03	A6
1H04	B6
1H05	B6
1H06	C6
1H07	D6
1H08	B3
1M63	C6
9Q00	B3
9Q01	B3
9Q02	B3
9Q03	B3
9Q04	B3
9Q05	E5
9Q27	E5
9Q28	A6
9Q29	A6
9Q30	B6
9Q31	D5
9Q32	B6
9Q33	B6
9Q34	B6
9Q35	E5
9Q36	C6
9Q37	C6
9Q38	D5
9Q47	D5
9Q48	D5
9Q49	D5
FQ07	D4
FQ08	E5
FQ10	D4
FQ11	D4
FQ12	D4
FQ13	D4
FQ14	E4
FQ15	E4
FQ16	E6
FQ17	E6
FQ18	E6
FQ19	B3
FQ20	B3
FQ21	B3
FQ22	B3
FQ23	B3
FQ25	B3

SSB (v2): UART Switch / Stby Supply / Voltage Detect / I^{2}C


B8A
UART SWITCH / STBY SUPPLY / VOLTAGE DETECT / I2C
B8A
1 2 3 4 5 6 7 8 9 10 11 12 13
A B C D E F G H I
+3V3-STANDBY
+1V2
7F12 BC847BW
7F02 NCP303LSN10T1
DETECT-1V2
7F03 NCP303LSN10T1
+2V5
BAS316
DETECT-2V5
7F05 NCP303LSN10T1
+3V3
DETECT-3V3
7F06 NCP303LSN10T1
+5V
DETECT-5V
7F08 NCP303LSN10T1
+8V6
DETECT-8V6
7F09 NCP303LSN10T1
+12VS
DETECT-12VSW
RESET-Main-NVM
7F21 BC857BW
7F11 M24C32/64-WDW6
(4Kx8) EEPROM
MAIN NVM
SCL-UP-VIP
SDA-UP-VIP
SCL-DMA
SDA-DMA
SCL-DMA-BUS1
SDA-DMA-BUS1
7F04 PCA9515DP
SDA-DMA-BUS2
SCL-DMA-BUS2
7F07 PCA9515DP
SDA-MM
SCL-MM
SDA-MM-BUS1
SCL-MM-BUS1
7F10 PCA9515DP
SDA-MM-BUS2
SCL-MM-BUS2
SCL-TUN
SDA-TUN
7F15 NCP303LSN10T1
RESET-STBY
7F17 PDTC114EU
+5V2
7F16 BC847BW
TS431L 7F18
+3V3-STANDBY
7F19 BC847BW
TS431L 7F20
+1V2-STANDBY
RXD
TXD
RXD-VIPER
TXD-VIPER
UART-SWITCH-5V2
UART-SWITCHn
7F14-1 74HC4016PW
7F14-2 74HC4016PW
7F14-3 74HC4016PW
7F14-4 74HC4016PW
RXD-UP
TXD-UP
UART-SWITCH
7F13 PDTC114EU
7F01 PDTC114EU
8204 000 8361.7
F_15710_054.eps
140905

2F12	B4
2F13	C7
2F14	C4
2F15	D4
2F16	E7
2F17	E4
2F18	F4
2F19	G7
2F20	G4
2F21	I3
2F23	F12
2F24	B10
2F25	C10
2F26	D10
2F27	C12
2F28	D13
3F01	A3
3F02	B3
3F03	B3
3F04	C3
3F05	E3
3F06	A12
3F07	E8
3F08	E8
3F09	F3
3F10	A2
3F11	B2
3F12	C2
3F13	D2
3F14	E2
3F15	F2
3F16	G2
3F17	G3
3F18	B6
3F19	B6
3F20	I12
3F21	I4
3F22	D3
3F23	D3
3F24	G3
3F25	G8
3F26	G8
3F27	C10
3F28	D6
3F29	D8
3F36	C6
3F37	C8
3F42	D8
3F43	D8
3F50	D2
3F54	I4
3F55	G12
3F56	G12
3F57	H3
3F58	F6
3F59	F8
3F60	F12
3F61	F12
3F62	E6
3F63	E8
3F64	E3
3F65	F3
3F66	C2
3F67	H2
3F68	H2
3F72	F6
3F73	F6
3F74	F8
3F75	F8
3F76	G6
3F77	G8
3F78	G6
3F79	G8
3F80	I8
3F81	I8
3F82	F10
3F85	I10
3F86	F10
3F88	G10
3F90	G10
3FA0	A10
3FA1	A11
3FA2	A10
3FA3	C11
3FA4	C11
3FA5	C9
3FA6	D10
3FA7	D10
3FA8	D10
3FA9	C12
3FB1	C13
3FB2	C13
3FB3	A3
3FB4	E2
3FB5	F2
3FB6	G2
6F01	C3
6F02	D3
6F03	E3
6F04	F3
6F05	G3
7F01	I12
7F02	A4
7F03	C4
7F04	C7
7F05	D4
7F06	E4
7F07	E7
7F08	F4
7F09	G4
7F10	G7
7F11	I2
7F12	A3
7F13	I11
7F14-1	F11
7F14-2	G11
7F14-3	G11
7F14-4	H11
7F15	A10
7F16	C11
7F17	B12
7F18	D9
7F19	C13
7F20	D11
7F21	H2
9F00	C7
9F01	C7
9F02	D7
9F03	E7
9F04	F7
9F05	F7
9F06	I3
9F07	I7
9F08	I7
9F09	I3
9F11	F10
9F12	F10
9F19	A12
9F22	F12
9F23	G12
9F24	G12
9F25	H12
9F26	H3
9F27	H3
9F30	H8
9F31	H8
9F32	H7
9F33	I7
FF10	B10
FF11	D7
FF12	E7
FF13	I4
FF14	I10
FF15	I11
FF16	D12
FF17	I4
FF18	F7
FF19	F7
FF20	I4
FF21	B5
FF22	C5
FF23	D5
FF24	E5
FF25	F5
FF26	G5
FF27	F10
FF28	C11
IF16	D8
IF18	E8
IF19	F8
IF26	F8
IF28	I8
IF29	I8
IF30	A2
IF31	B3
IF32	C3
IF33	C3
IF34	D3
IF35	D3
IF36	E3
IF37	E3
IF38	F3
IF39	F3
IF40	G3
IF41	G3
IF42	C10
IF43	C11
IF44	C12
IF45	C13
IF46	D10
IF47	B4
IF48	C4
IF49	D4
IF50	E4
IF51	F4
IF52	G4
IF53	B10
IF54	B11
IF55	A12
IF57	C8
IF58	C8

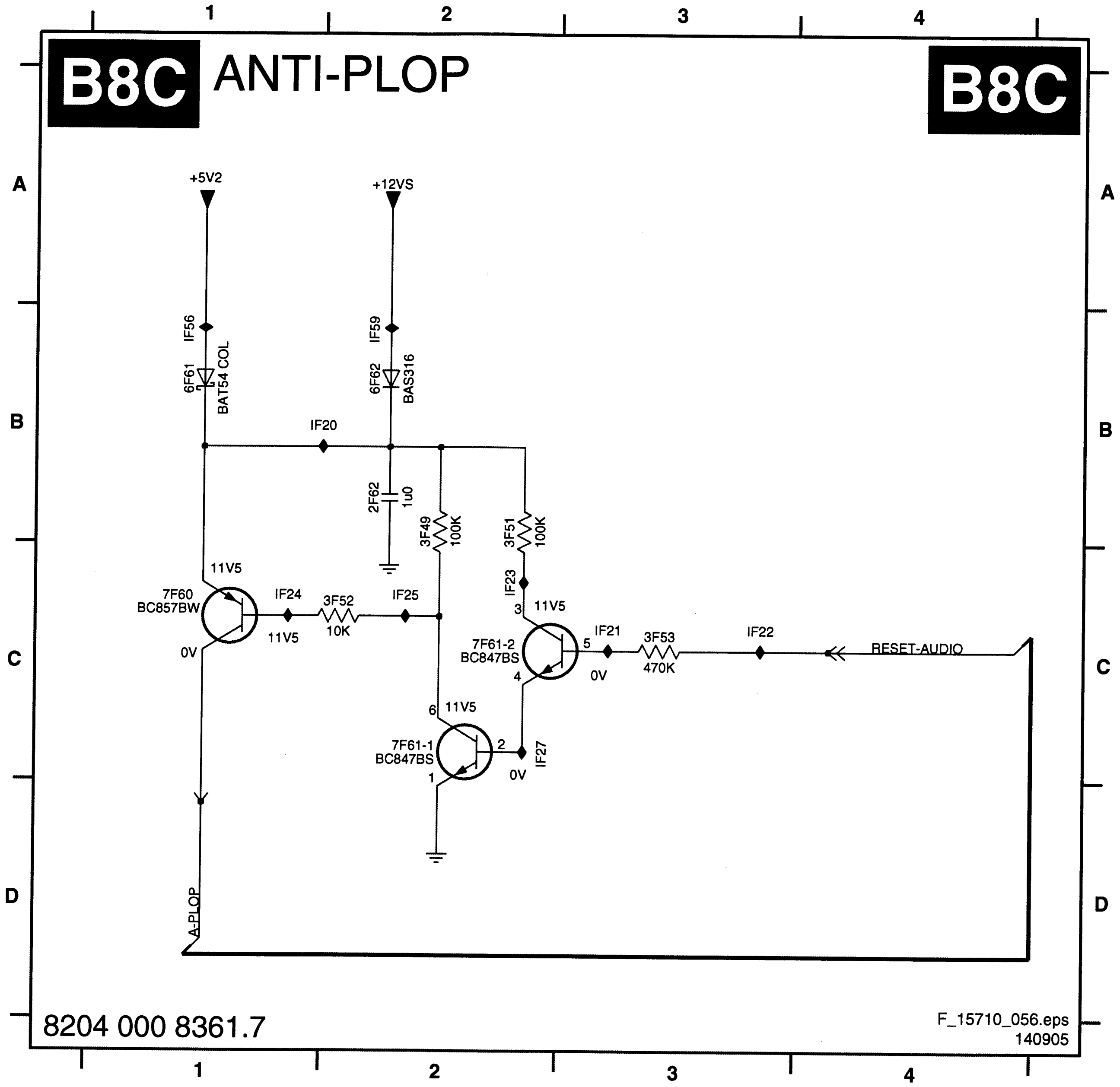
SSB (v2): NAND Flash


B8B NAND FLASH
B8B
7F50
74LVC245APW
+3V3
3EN1
3EN2
G3
PCI-CBE2
XIO-SEL0
PCI-AD19
PCI-AD27
PCI-AD18
PCI-AD26
PCI-AD17
PCI-AD25
PCI-AD16
PCI-AD24
NAND-AD(11)
NAND-AD(3)
NAND-AD(10)
NAND-AD(2)
NAND-AD(9)
NAND-AD(1)
NAND-AD(8)
NAND-AD(0)
7F52
74LVC245APW
2F33
100n
PCI-AD23
PCI-AD31
PCI-AD22
PCI-AD30
PCI-AD21
PCI-AD29
PCI-AD20
PCI-AD28
NAND-AD(15)
NAND-AD(7)
NAND-AD(14)
NAND-AD(6)
NAND-AD(13)
NAND-AD(5)
NAND-AD(12)
NAND-AD(4)
7F51
74LVC245APW
2F34
100n
3F44
10K
IF60
PCI-AD0
PCI-AD1
PCI-CBE1
NAND-REN
NAND-CLE
NAND-ALE
NAND-WEN
2F31
100n
2F32
100n
TC58DVM82F1TGI0
7F53
VCCQ
VCC
EEPROM
(16Mx16)
3F39
10K
XIO-SEL0
3F40
2K2
XIO-ACK
STBY-WP-NAND-FLASH
IF17
9F21
RE
CE
CLE
ALE
WE
WP
RY
BY
I/O
NC
VSS
GND
3F41
10K
IF10
5F10
220R
+8V6
3F35
82K
3F46
1K0
3F48
33R
2F39
100n
2F40
1u0 16V
IF61
8V6
IF12
8V0
BC847BPN
7F55-2
2F37
1u0
2F38
1u0
IF11
3V2
7F55-1
BC847BPN
IF14
4V8
IF13
2V6
330R
3F70
3F45
47K
3F47
330R
3F71
10K
Y-CVBS-MON-OUT
DAC-CVBS
2F35
100n
2F36
1u0
7F54
CY2305SC-1
VDD
ZERO
DELAY
BUFFER
REF
CLK
CLKOUT
3F31
33R
3F32
33R
FF31
3F33
33R
FF33
3F34
33R
IF15
3F30
33R
FF30
PCI-CLK-USB20
PCI-CLK-SPIDER
PCI-CLK-VPR
PCI-CLK-SLOT
PCI-CLK-ETHERNET
3F38
33R
PLL-OUT
PCI
CLOCK - BUFFER
8204 000 8361.7
F_15710_055.eps
140905

2F31	A5
2F32	A6
2F33	C2
2F34	F2
2F35	C8
2F36	D8
2F37	B7
2F38	B7
2F39	A9
2F40	A9
3F30	E9
3F31	D8
3F32	D9
3F33	D8
3F34	D9
3F35	A7
3F38	E8
3F39	B3
3F40	C3
3F41	D5
3F44	F1
3F45	B7
3F46	A8
3F47	B8
3F48	A8
3F70	B8
3F71	B8
5F10	A9
7F50	A2
7F51	F2
7F52	D1
7F53	B5
7F54	D7
7F55-1	B8
7F55-2	B8
9F21	C5
FF30	E9
FF31	D9
FF33	D9
IF10	A8
IF11	B7
IF12	B8
IF13	B8
IF14	B8
IF15	D9
IF17	C5
IF60	F2
IF61	B8

SSB (v2): Anti Plop

2F62	B2
3F49	B2
3F51	B2
3F52	C2
3F53	C3
6F61	B1
6F62	B2
7F60	C1
7F61-1	C2
7F61-2	C2
IF20	B1
IF21	C3
IF22	C3
IF23	C2
IF24	C1
IF25	C2
IF27	C2
IF56	B1
IF59	B2


1
2
3
4
A
B
C
D
B8C
ANTI-PLOP
B8C
+5V2
+12VS
IF56
6F61
BAT54 COL
IF59
6F62
BAS316
IF20
2F62
1u0
3F49
100K
3F51
100K
IF23
11V5
7F60
BC857BW
0V
IF24
3F52
10K
11V5
IF25
3
11V5
7F61-2
BC847BS
5
4
IF21
0V
3F53
470K
IF22
RESET-AUDIO
6
11V5
7F61-1
BC847BS
1
2
0V
IF27
A-PLOP
8204 000 8361.7
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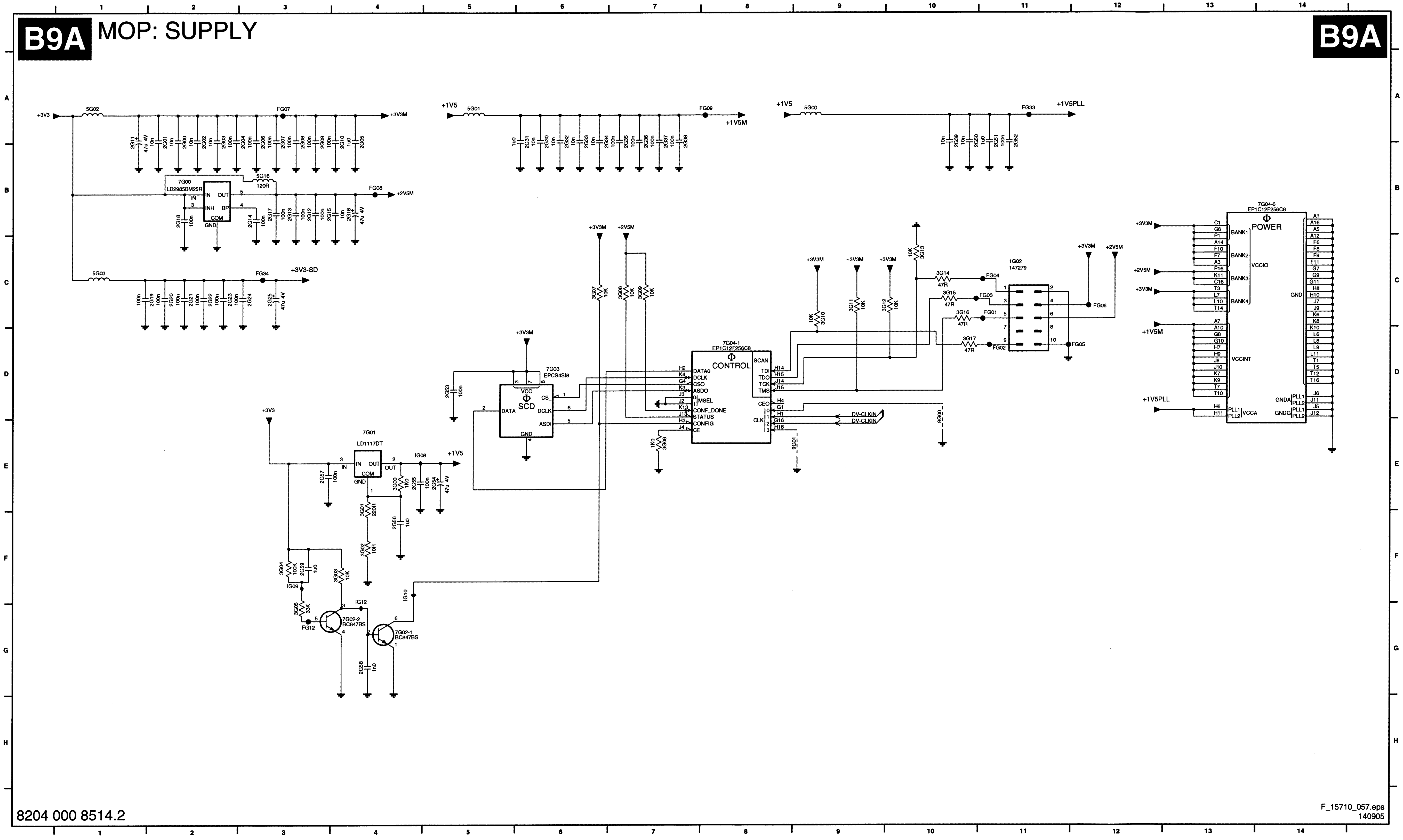
Personal Notes:

E_06532_012.eps
131004

SSB (v2): MOP: Supply

1G02	C11
2G00	A2
2G01	A2
2G02	A2
2G03	A2
2G04	A3
2G05	A4
2G06	A3
2G07	A3
2G08	A3
2G09	A3
2G10	A4
2G11	A1
2G12	B3
2G13	B3
2G14	B3
2G15	B3
2G16	B4
2G17	B3
2G18	B2
2G19	C2
2G20	C2
2G21	C2
2G22	C2
2G23	C2
2G24	C3
2G25	C3
2G30	A6
2G31	A6
2G32	A6
2G33	A6
2G34	A6
2G35	A7
2G36	A7
2G37	A7
2G38	A7
2G39	A10
2G50	A10
2G51	A11
2G52	A11
2G53	D5
2G54	E5
2G55	E4
2G56	F4
2G57	E3
2G58	G4
2G59	F3
3G00	E4
3G01	E4
3G02	F4
3G03	F4
3G04	F3
3G05	G3
3G06	E7
3G07	C6
3G08	C7
3G09	C7
3G10	C9
3G11	C9
3G12	C10
3G13	C10
3G14	C10
3G15	C10
3G16	C10
3G17	D10
5G00	A9
5G01	A5
5G02	A1
5G03	C1
5G16	B3
7G00	B2
7G01	E4
7G02-1	G4
7G02-2	G4
7G03	D6
7G04-1	D8
7G04-6	B14
9G00	D9
9G01	E9
FG01	C11
FG02	D11
FG03	C11
FG04	C11
FG05	D12
FG06	C12
FG07	A3
FG08	B4
FG09	A8
FG12	G3
FG33	A11
FG34	C3
IG08	E4
IG09	F3
IG10	F4
IG12	F4

B9A MOP: SUPPLY


B9A
+3V3
5G02
FG07
+3V3M
+1V5
5G01
FG09
+1V5M
5G00
FG33
+1V5PLL
7G00
LD2985BM25R
5G16
120R
FG08
+2V5M
5G03
FG34
+3V3-SD
7G03
EPCS4SI8
SCD
7G04-1
EP1C12F256C8
CONTROL
1G02
147279
7G04-6
EP1C12F256C8
POWER
7G01
LD1117DT
IG08
7G02-2
BC847BS
7G02-1
BC847BS
DV-CLKIN
1 2 3 4 5 6 7 8 9 10 11 12 13 14
A B C D E F G H

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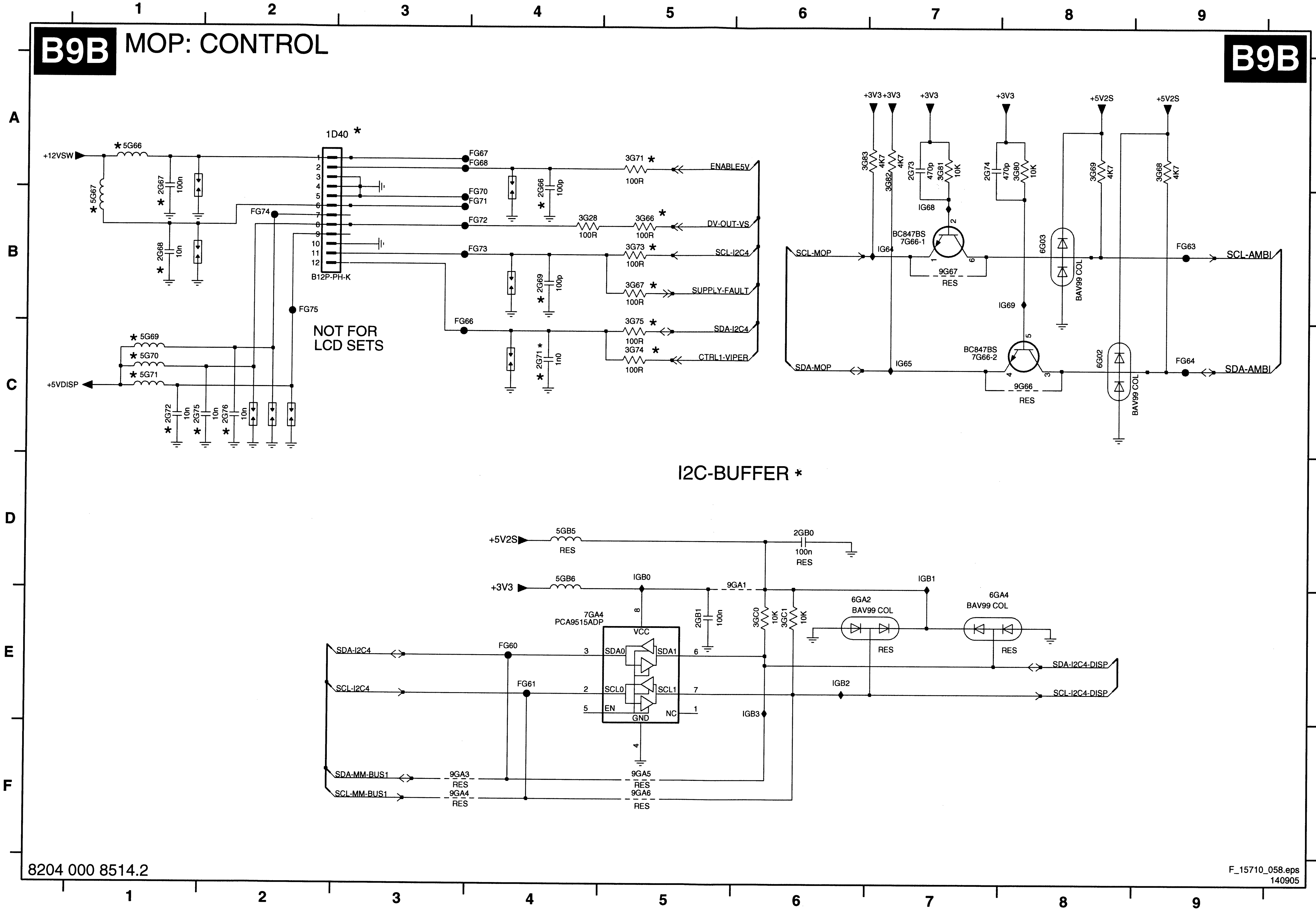
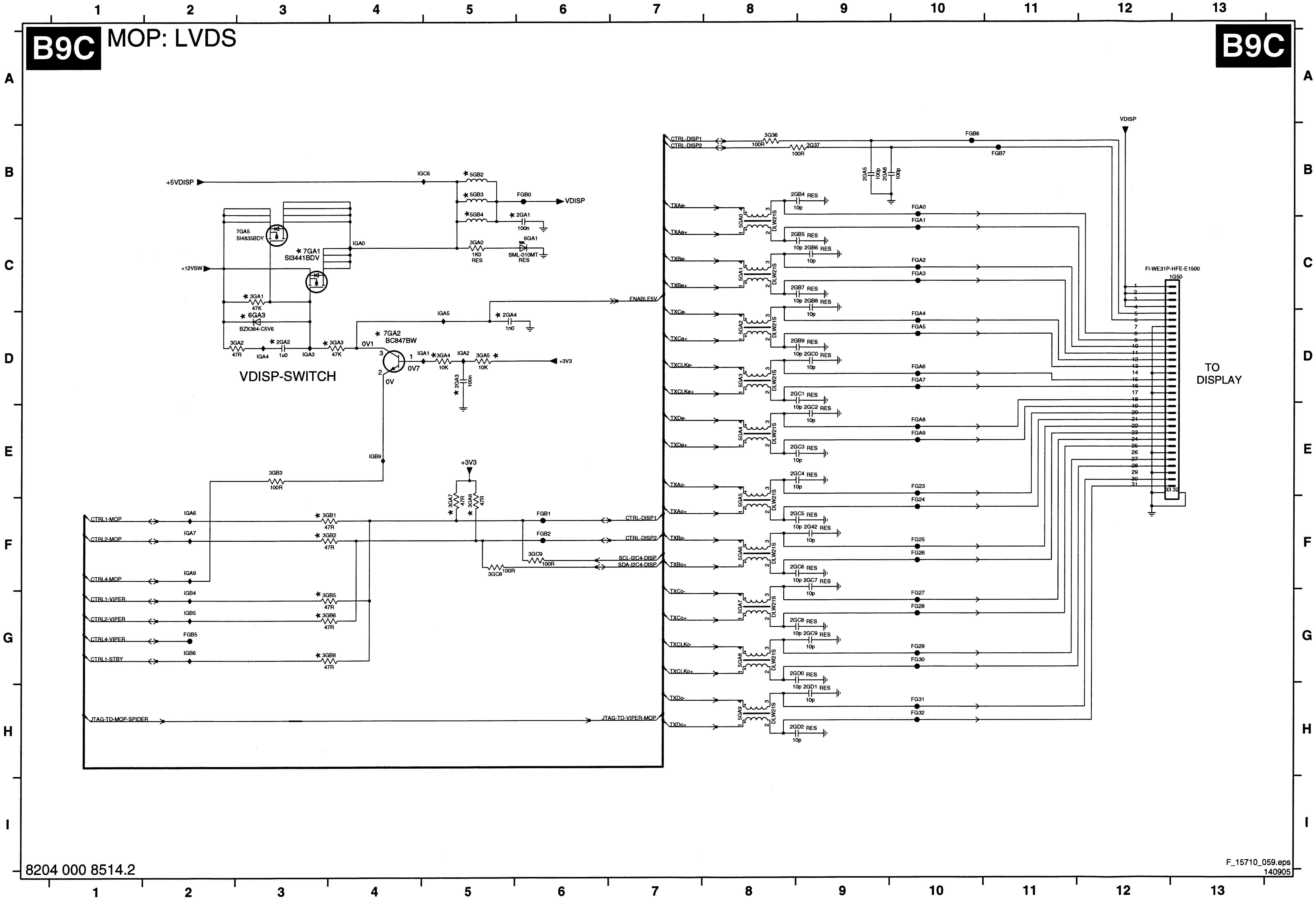
SSB (v2): MOP: Control



1 2 3 4 5 6 7 8 9
A B C D E F
B9B
MOP: CONTROL
B9B
1D40 *
B12P-PH-K
+12VSW
5G66
5G67
2G67 100n
2G68 10n
FG67
FG68
FG70
FG71
FG72
FG73
FG74
FG75
FG66
3G71 * 100R
ENABLE5V
2G66 100p
3G28 100R
3G66 * 100R
DV-OUT-VS
3G73 * 100R
SCL-I2C4
2G69 100p
3G67 * 100R
SUPPLY-FAULT
3G75 * 100R
SDA-I2C4
2G71 * 1n0
3G74 * 100R
CTRL1-VIPER
NOT FOR LCD SETS
5G69
5G70
5G71
+5VDISP
2G72 10n
2G75 10n
2G76 10n
+3V3
+5V2S
3G83 4K7
3G82 4K7
2G73 470p
3G81 10K
2G74 470p
3G80 10K
3G69 4K7
3G68 4K7
IG68
BC847BS 7G66-1
IG64
SCL-MOP
9G67 RES
6G03
BAV99 COL
FG63
SCL-AMBI
IG69
BC847BS 7G66-2
SDA-MOP
IG65
9G66 RES
6G02
BAV99 COL
FG64
SDA-AMBI
I2C-BUFFER *
+5V2S
5GB5 RES
2GB0 100n RES
+3V3
5GB6
IGB0
9GA1
IGB1
7GA4 PCA9515ADP
VCC
SDA0
SDA1
SCL0
SCL1
EN
GND
NC
2GB1 100n
3GC0 10K
3GC1 10K
6GA2 BAV99 COL RES
6GA4 BAV99 COL RES
FG60
FG61
SDA-I2C4
SCL-I2C4
SDA-I2C4-DISP
SCL-I2C4-DISP
IGB2
IGB3
SDA-MM-BUS1
SCL-MM-BUS1
9GA3 RES
9GA4 RES
9GA5 RES
9GA6 RES
8204 000 8514.2
F_15710_058.eps
140905

1D40	A2
2G66	A4
2G67	A1
2G68	B1
2G69	B4
2G71	C4
2G72	C1
2G73	A7
2G74	A7
2G75	C1
2G76	C2
2GB0	D6
2GB1	E5
3G28	B4
3G66	B5
3G67	B5
3G68	A9
3G69	A8
3G71	A5
3G73	B5
3G74	C5
3G75	C5
3G80	A8
3G81	A7
3G82	A7
3G83	A6
3GC0	E6
3GC1	E6
5G66	A1
5G67	B1
5G69	C1
5G70	C1
5G71	C1
5GB5	D4
5GB6	D4
6G02	C8
6G03	B8
6GA2	E6
6GA4	E8
7G66-1	B7
7G66-2	C7
7GA4	E5
9G66	C8
9G67	B7
9GA1	D6
9GA3	F3
9GA4	F3
9GA5	F5
9GA6	F5
FG60	E4
FG61	E4
FG63	B9
FG64	C9
FG66	C3
FG67	A4
FG68	A4
FG70	B4
FG71	B4
FG72	B4
FG73	B4
FG74	B2
FG75	B2
IG64	B7
IG65	C7
IG68	B7
IG69	B8
IGB0	D5
IGB1	D7
IGB2	E6
IGB3	E6

SSB (v2): MOP: LVDS


B9C
MOP: LVDS
B9C
VDISP-SWITCH
+5VDISP
VDISP
+12VSW
+3V3
7GA5 SI4835BDY
7GA1 SI3441BDV
7GA2 BC847BW
6GA3 BZX384-C5V6
6GA1 SML-010MT
ENABLE5V
CTRL-DISP1
CTRL-DISP2
TXAe-
TXAe+
TXBe-
TXBe+
TXCe-
TXCe+
TXCLKe-
TXCLKe+
TXDe-
TXDe+
TXAo-
TXAo+
TXBo-
TXBo+
TXCo-
TXCo+
TXCLKo-
TXCLKo+
TXDo-
TXDo+
DLW21S
CTRL1-MOP
CTRL2-MOP
CTRL4-MOP
CTRL1-VIPER
CTRL2-VIPER
CTRL4-VIPER
CTRL1-STBY
SCL-I2C4-DISP
SDA-I2C4-DISP
JTAG-TD-MOP-SPIDER
JTAG-TD-VIPER-MOP
FI-WE31P-HFE-E1500
1G50
TO DISPLAY
8204 000 8514.2
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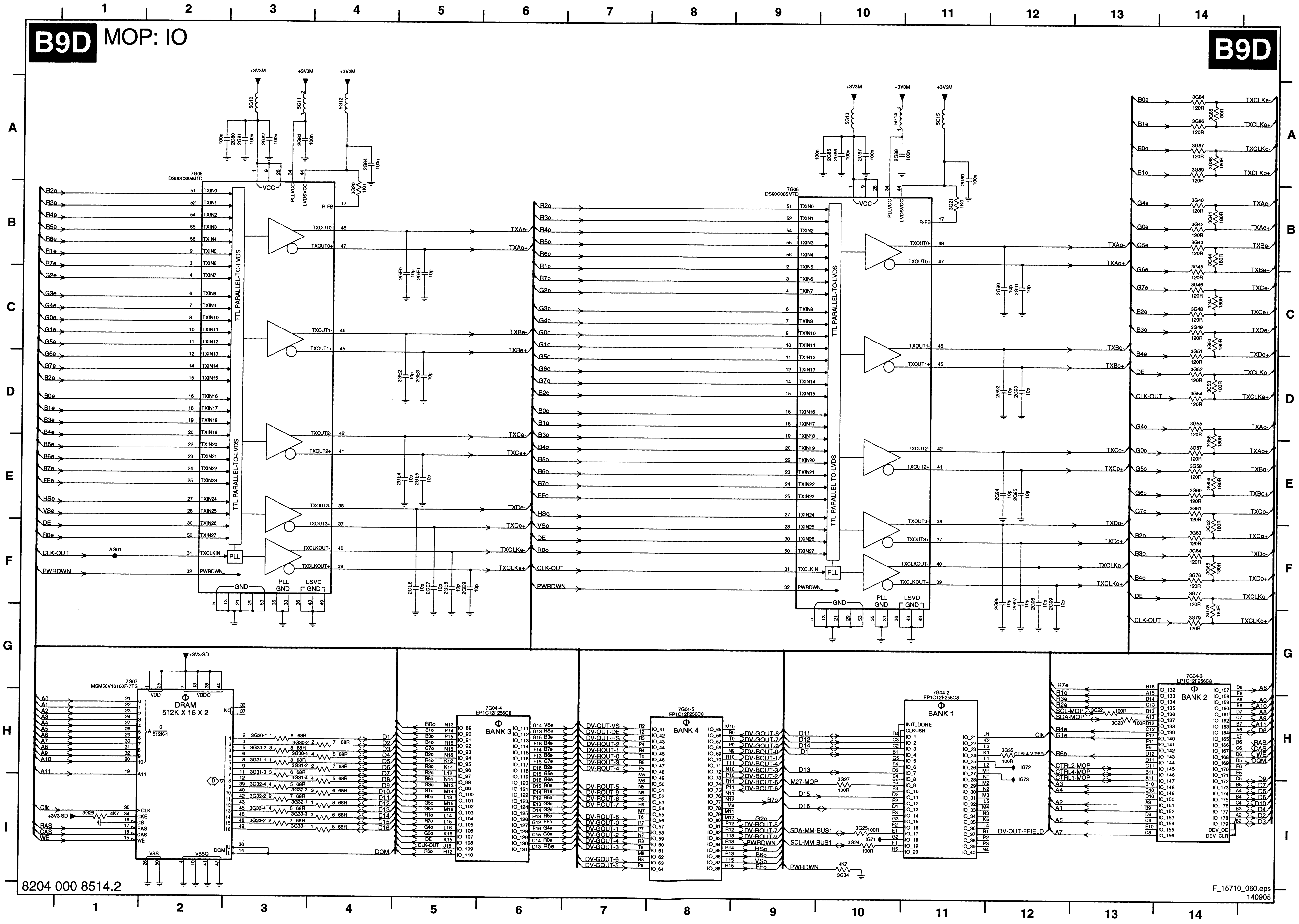
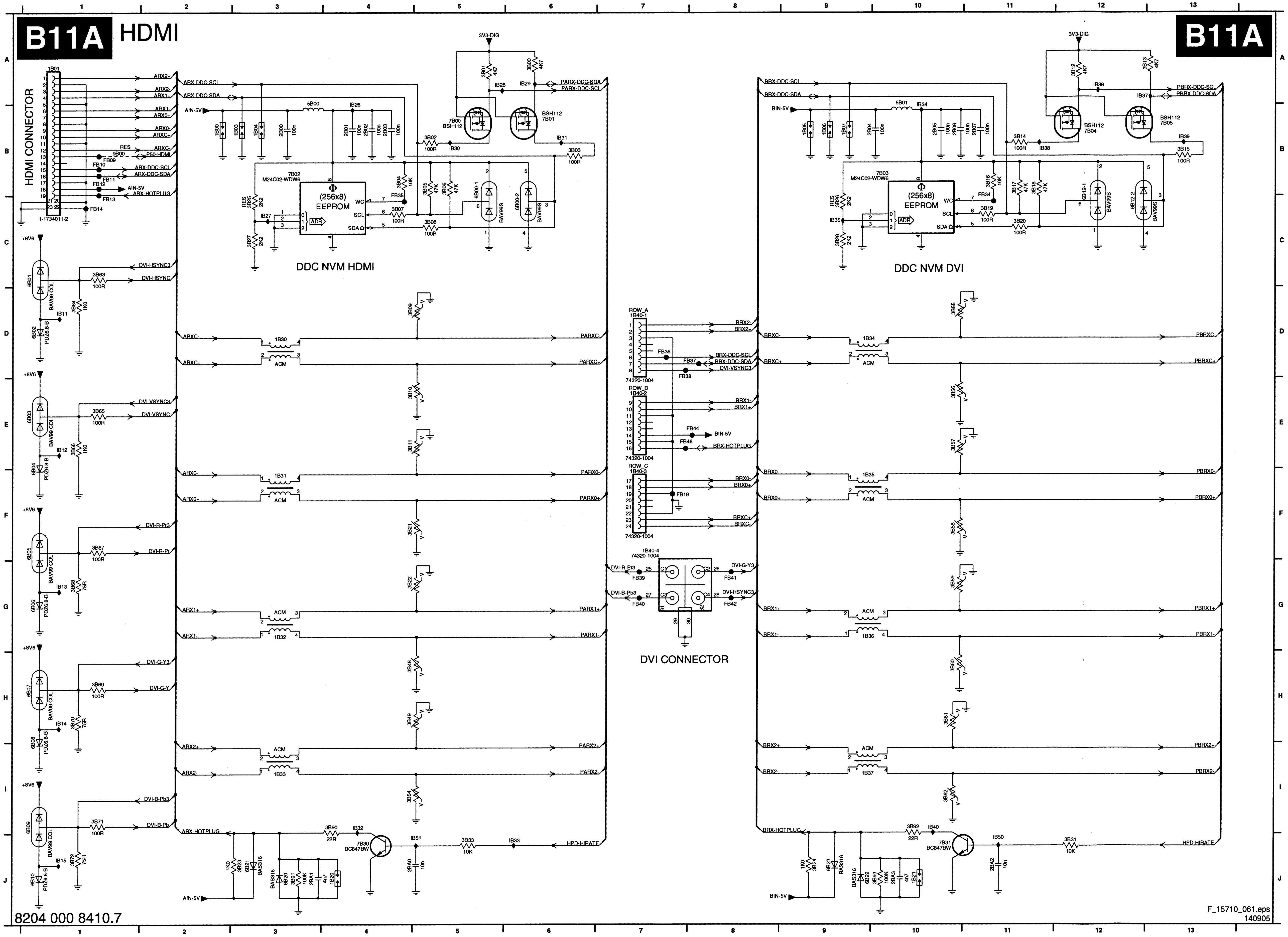
1G50	C13
2G42	F9
2GA1	B6
2GA2	D3
2GA3	D5
2GA4	D5
2GA5	B9
2GA6	B9
2GB4	B9
2GB5	C9
2GB6	C9
2GB7	C9
2GB8	C9
2GB9	D9
2GC0	D9
2GC1	D9
2GC2	E9
2GC3	E9
2GC4	E9
2GC5	F9
2GC6	F9
2GC7	F9
2GC8	G9
2GC9	G9
2GD0	G9
2GD1	H9
2GD2	H9
3G36	B8
3G37	B9
3GA0	C5
3GA1	C3
3GA2	D3
3GA3	D4
3GA4	D5
3GA5	D5
3GA7	F5
3GA8	F5
3GB1	F4
3GB2	F4
3GB3	E3
3GB5	G4
3GB6	G4
3GB8	G4
3GC8	F5
3GC9	F6
5GA0	C8
5GA1	C8
5GA2	D8
5GA3	D8
5GA4	E8
5GA5	F8
5GA6	F8
5GA7	G8
5GA8	G8
5GA9	H8
5GB2	B5
5GB3	B5
5GB4	B5
6GA1	C6
6GA3	D3
7GA1	C3
7GA2	D4
7GA5	C2
FG23	E10
FG24	F10
FG25	F10
FG26	F10
FG27	G10
FG28	G10
FG29	G10
FG30	G10
FG31	H10
FG32	H10
FGA0	B10
FGA1	C10
FGA2	C10
FGA3	C10
FGA4	D10
FGA5	D10
FGA6	D10
FGA7	D10
FGA8	E10
FGA9	E10
FGB0	B6
FGB1	F6
FGB2	F6
FGB5	G2
FGB6	B10
FGB7	B11
IGA0	C4
IGA1	D5
IGA2	D5
IGA3	D3
IGA4	D3
IGA5	D5
IGA6	F2
IGA7	F2
IGA9	F2
IGB4	G2
IGB5	G2
IGB6	G2
IGB9	E4
IGC6	B5

SSB (v2): MOP: I/O


B9D
MOP: IO
B9D
7G05
DS90C385MTD
7G06
DS90C385MTD
TTL PARALLEL-TO-LVDS
7G07
MSM56V16160F-7TS
DRAM
512K X 16 X 2
7G04-4
EP1C12F256C8
BANK 3
7G04-5
EP1C12F256C8
BANK 4
7G04-2
EP1C12F256C8
BANK 1
7G04-3
EP1C12F256C8
BANK 2
+3V3M
+3V3-SD
CLK-OUT
PWRDWN
AG01
8204 000 8514.2
F_15710_060.eps
140905

2G80	A3
2G81	A3
2G82	A3
2G83	A3
2G84	A4
2G85	A10
2G86	A10
2G87	A10
2G88	A10
2G89	A11
2G90	C12
2G91	C12
2G92	D12
2G93	D12
2G94	E12
2G95	E12
2G96	F12
2G97	F12
2G98	F12
2G99	F12
2GE0	C5
2GE1	C5
2GE2	D5
2GE3	D5
2GE4	E5
2GE5	E5
2GE6	F5
2GE7	F5
2GE8	F5
2GE9	F5
3G20	B4
3G21	B11
3G22	H13
3G23	H13
3G24	I10
3G25	I10
3G26	I1
3G27	I10
3G30-1	H3
3G30-2	H3
3G30-3	H3
3G30-4	H3
3G31-1	H3
3G31-2	H3
3G31-3	H3
3G31-4	I3
3G32-1	I3
3G32-2	I3
3G32-3	I3
3G32-4	I3
3G33-1	I3
3G33-2	I3
3G33-3	I3
3G33-4	I3
3G34	I10
3G35	H12
3G40	B14
3G41	B14
3G42	B14
3G43	B14
3G44	B14
3G45	B14
3G46	C14
3G47	C14
3G48	C14
3G49	C14
3G50	C14
3G51	C14
3G52	D14
3G53	D14
3G54	D14
3G55	D14
3G56	E14
3G57	E14
3G58	E14
3G59	E14
3G60	E14
3G61	E14
3G62	F14
3G63	F14
3G64	F14
3G65	F14
3G76	F14
3G77	F14
3G78	G14
3G79	G14
3G84	A14
3G85	A14
3G86	A14
3G87	A14
3G88	A14
3G89	A14
5G10	A3
5G11	A3
5G12	A4
5G13	A10
5G14	A10
5G15	A11
7G04-2	H11
7G04-3	G14
7G04-4	H6
7G04-5	H8
7G05	A2
7G06	B9
7G07	G1
AG01	F1
IG71	I10
IG72	H12
IG73	I12

SSB (v2): HDMI


B11A HDMI
B11A
HDMI CONNECTOR
1B01
1-1734011-2
ARX2+
ARX2-
ARX1+
ARX1-
ARX0+
ARX0-
ARXC-
ARXC+
RES
9B00
P50-HDMI
FB09
FB10
FB11
FB12
FB13
FB14
ARX-DDC-SCL
ARX-DDC-SDA
AIN-5V
ARX-HOTPLUG
3V3-DIG
AIN-5V
5B00
IB26
7B02
M24C02-WDW6
(256x8)
EEPROM
ADR
WC
SCL
SDA
7B00
BSH112
7B01
BSH112
PARX-DDC-SDA
PARX-DDC-SCL
DDC NVM HDMI
BAV99S
DVI-HSYNC3
DVI-HSYNC
DVI-VSYNC3
DVI-VSYNC
DVI-R-Pr3
DVI-R-Pr
DVI-G-Y3
DVI-G-Y
DVI-B-Pb3
DVI-B-Pb
+8V6
BAV99 COL
PDZ6.8-B
1B30
1B31
1B32
1B33
ACM
PARXC-
PARXC+
PARX0-
PARX0+
PARX1+
PARX1-
PARX2+
PARX2-
ROW_A
1B40-1
ROW_B
1B40-2
ROW_C
1B40-3
74320-1004
1B40-4
BRX2-
BRX2+
BRX-DDC-SCL
BRX-DDC-SDA
DVI-VSYNC3
BRX1-
BRX1+
BIN-5V
BRX-HOTPLUG
BRX0-
BRX0+
BRXC+
BRXC-
DVI CONNECTOR
DVI-G-Y3
DVI-HSYNC3
3B90
22R
7B30
BC847BW
3B33
10K
HPD-HIRATE
BAS316
3V3-DIG
BIN-5V
5B01
7B03
M24C02-WDW6
7B04
BSH112
7B05
BSH112
PBRX-DDC-SCL
PBRX-DDC-SDA
DDC NVM DVI
1B34
1B35
1B36
1B37
PBRXC-
PBRXC+
PBRX0-
PBRX0+
PBRX1+
PBRX1-
PBRX2+
PBRX2-
3B92
7B31
BC847BW
3B31
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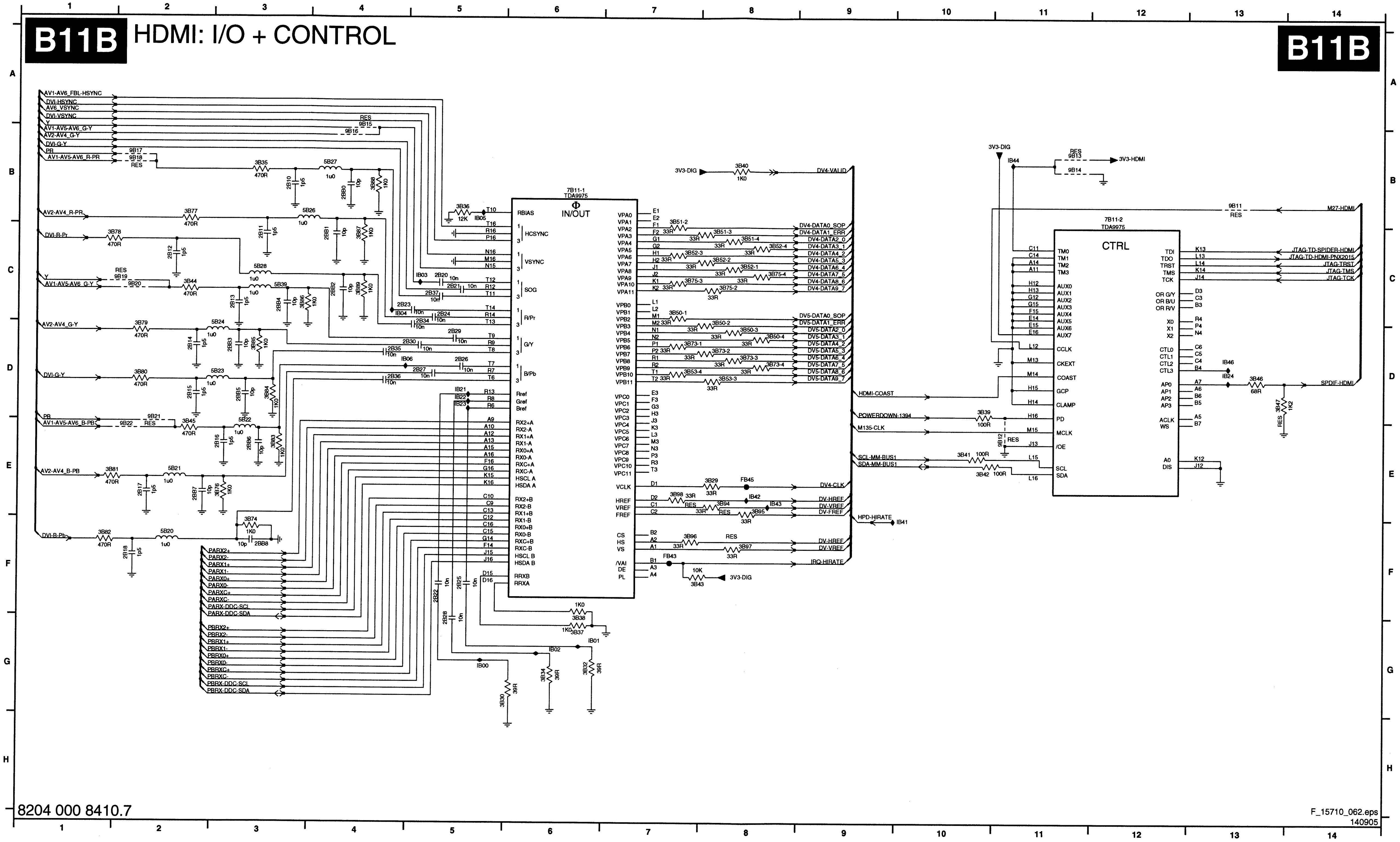
1B00 B2	
1B01 A1	
1B03 B3	
1B04 B3	
1B05 B9	
1B06 B9	
1B07 B9	
1B20 J4	
1B21 J10	
1B30 D3	
1B31 F3	
1B32 G3	
1B33 I3	
1B34 D9	
1B35 F9	
1B36 G9	
1B37 I9	
1B40-1 D7	
1B40-2 E7	
1B40-3 F7	
1B40-4 F7	
2B00 B3	
2B01 B4	
2B02 B4	
2B03 B4	
2B04 B9	
2B05 B10	
2B06 B10	
2B07 B11	
2BA0 J4	
2BA1 J3	
2BA2 J11	
2BA3 J10	
3B00 A6	
3B01 A5	
3B02 B5	
3B03 B6	
3B04 B4	
3B05 B5	
3B06 B5	
3B07 C4	
3B08 C5	
3B09 D4	
3B10 E4	
3B11 E4	
3B12 A12	
3B13 A12	
3B14 B11	
3B15 B13	
3B16 B11	
3B17 B11	
3B18 B11	
3B19 C11	
3B20 C11	
3B21 F4	
3B22 G4	
3B23 J3	
3B24 J9	
3B25 C3	
3B26 C9	
3B27 C3	
3B28 C9	
3B31 J12	
3B33 J5	
3B48 H4	
3B49 H4	
3B54 I4	
3B55 D10	
3B56 E10	
3B57 E10	
3B58 F10	
3B59 G10	
3B60 H10	
3B61 H10	
3B62 I10	
3B63 C1	
3B64 D1	
3B65 E1	
3B66 E1	
3B67 F1	
3B68 G1	
3B69 H1	
3B70 H1	
3B71 I1	
3B72 J1	
3B90 I4	
3B91 J3	
3B92 I10	
3B93 J10	
5B00 B3	
5B01 B10	
6B00-1 B5	
6B00-2 C6	
6B01 C1	
6B02 D1	
6B03 E1	
6B04 E1	
6B05 F1	
6B06 G1	
6B07 H1	
6B08 H1	
6B09 I1	
6B10 J1	
6B12-1 B12	
6B12-2 C12	
6B20 J3	
6B21 J3	
6B22 J9	
6B23 J9	
7B00 B5	
7B01 B6	
7B02 B3	
7B03 B10	
7B04 B12	
7B05 B13	
7B30 J4	
7B31 J10	
9B00 B1	
FB09 B1	
FB10 B1	
FB11 B1	
FB12 B1	
FB13 C1	
FB14 C1	
FB19 F7	
FB34 C11	
FB35 C4	
FB36 D7	
FB37 D8	
FB38 E7	
FB39 G7	
FB40 G7	
FB41 G8	
FB42 G8	
FB44 E8	
FB46 E7	
IB11 D1	
IB12 E1	
IB13 G1	
IB14 H1	
IB15 J1	
IB26 A4	
IB27 C3	
IB28 A5	
IB29 A6	
IB30 B5	
IB31 B6	
IB32 I4	
IB33 J6	
IB34 B10	
IB35 C9	
IB36 A12	
IB37 A12	
IB38 B11	
IB39 B13	
IB40 I10	
IB50 J11	
IB51 J5	

SSB (v2): HDMI: I/O + Control


B11B
HDMI: I/O + CONTROL
B11B
7B11-1
TDA9975
IN/OUT
7B11-2
TDA9975
CTRL
AV1-AV6_FBL-HSYNC
DVI-HSYNC
AV6_VSYNC
DVI-VSYNC
AV1-AV5-AV6_G-Y
AV2-AV4_G-Y
DVI-G-Y
PR
AV1-AV5-AV6_R-PR
AV2-AV4_R-PR
DVI-R-Pr
AV1-AV5-AV6_G-Y
AV2-AV4_G-Y
DVI-G-Y
PB
AV1-AV5-AV6_B-PB
AV2-AV4_B-PB
DVI-B-Pb
PARX2+
PARX2-
PARX1+
PARX1-
PARX0+
PARX0-
PARXC+
PARXC-
PARX-DDC-SCL
PARX-DDC-SDA
PBRX2+
PBRX2-
PBRX1+
PBRX1-
PBRX0+
PBRX0-
PBRXC+
PBRXC-
PBRX-DDC-SCL
PBRX-DDC-SDA
RBIAS
HCSYNC
VSYNC
SOG
R/Pr
G/Y
B/Pb
Rref
Gref
Bref
RX2+A
RX2-A
RX1+A
RX1-A
RX0+A
RX0-A
RXC+A
RXC-A
HSCL A
HSDA A
RX2+B
RX2-B
RX1+B
RX1-B
RX0+B
RX0-B
RXC+B
RXC-B
HSCL B
HSDA B
RRXB
RRXA
VPA0
VPA11
VPB0
VPB11
VPC0
VPC11
VCLK
HREF
VREF
FREF
CS
HS
VS
/VAI
DE
PL
3V3-DIG
DV4-VALID
DV4-DATA0_SOP
DV4-DATA1_ERR
DV4-DATA2_0
DV4-DATA3_1
DV4-DATA4_2
DV4-DATA5_3
DV4-DATA6_4
DV4-DATA7_5
DV4-DATA8_6
DV4-DATA9_7
DV5-DATA0_SOP
DV5-DATA1_ERR
DV5-DATA2_0
DV5-DATA3_1
DV5-DATA4_2
DV5-DATA5_3
DV5-DATA6_4
DV5-DATA7_5
DV5-DATA8_6
DV5-DATA9_7
DV4-CLK
DV-HREF
DV-VREF
DV-FREF
DV-HREF
DV-VREF
IRQ-HIRATE
HDMI-COAST
POWERDOWN-1394
M135-CLK
SCL-MM-BUS1
SDA-MM-BUS1
HPD-HIRATE
3V3-HDMI
M27-HDMI
JTAG-TD-SPIDER-HDMI
JTAG-TD-HDMI-PNX2015
JTAG-TRST
JTAG-TMS
JTAG-TCK
SPDIF-HDMI
TM0
TM1
TM2
TM3
AUX0
AUX7
CCLK
CKEXT
COAST
GCP
CLAMP
PD
MCLK
/OE
SCL
SDA
TDI
TDO
TRST
TMS
TCK
OR G/Y
OR B/U
OR R/V
X0
X1
X2
CTL0
CTL1
CTL2
CTL3
AP0
AP1
AP2
AP3
ACLK
WS
A0
DIS
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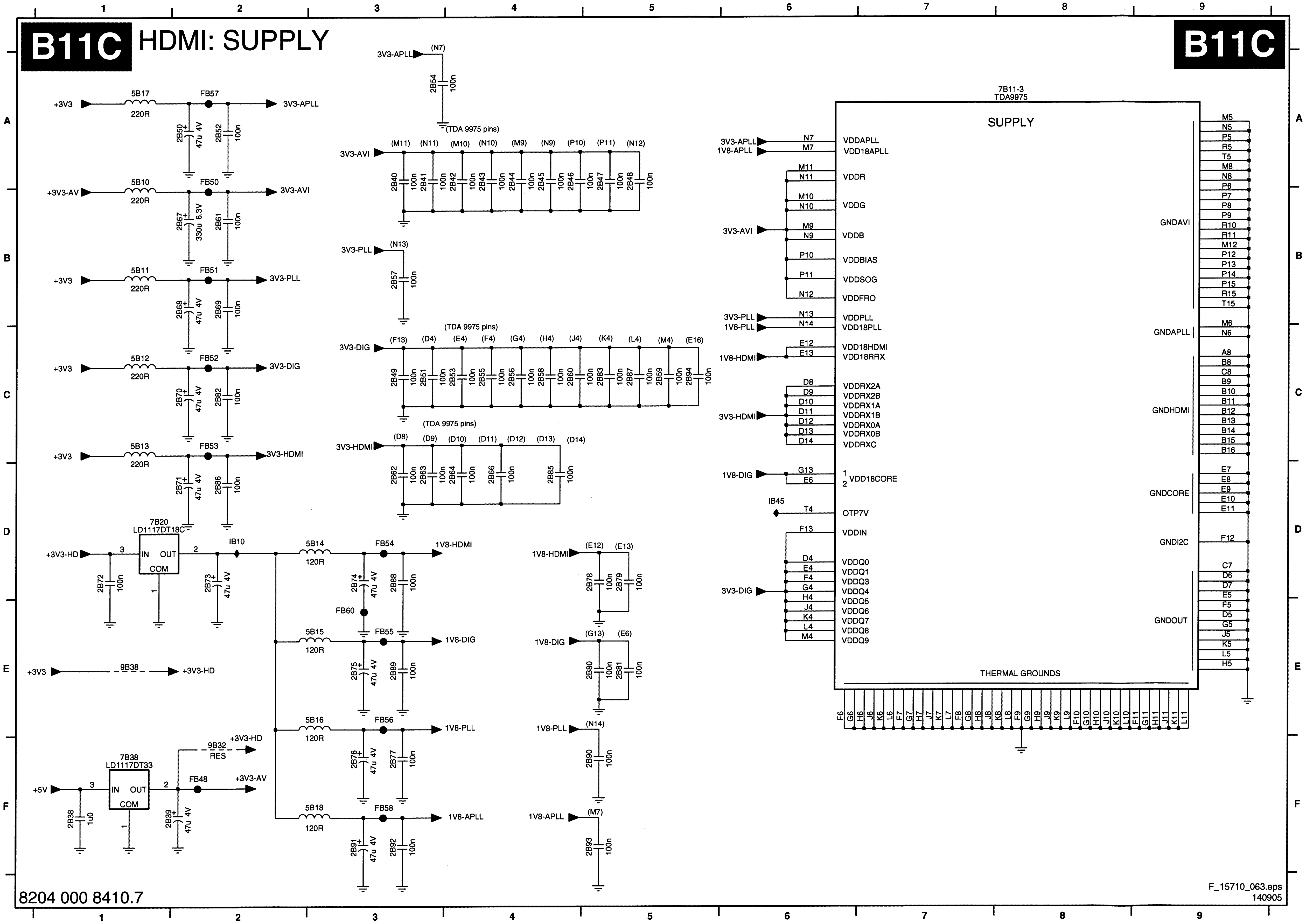
2B10 B3
2B11 C3
2B12 C2
2B13 C3
2B14 D2
2B15 D2
2B16 E3
2B17 E2
2B18 F2
2B20 C5
2B21 C5
2B22 F5
2B23 C4
2B24 C5
2B25 F5
2B26 D5
2B27 D5
2B28 G5
2B29 D5
2B30 D5
2B34 D5
2B35 D4
2B36 D4
2B37 C5
2BB0 B4
2BB1 C4
2BB2 C4
2BB3 D3
2BB4 C3
2BB5 D3
2BB6 E3
2BB7 E2
2BB8 F3
3B29 E8
3B30 G6
3B32 G6
3B34 G6
3B35 B3
3B36 B5
3B37 G6
3B38 F6
3B39 D10
3B40 B8
3B41 E10
3B42 E10
3B43 F7
3B44 C2
3B45 E2
3B46 D13
3B47 D13
3B50-1 C7
3B50-2 D8
3B50-3 D8
3B50-4 D8
3B51-2 B7
3B51-3 C8
3B51-4 C8
3B52-1 C8
3B52-2 C8
3B52-3 C7
3B52-4 C8
3B53-3 D8
3B53-4 D7
3B73-1 D7
3B73-2 D8
3B73-3 D8
3B73-4 D8
3B74 F3
3B75-2 C8
3B75-3 C7
3B75-4 C8
3B76 E3
3B77 B2
3B78 C1
3B79 D2
3B80 D2
3B81 E1
3B82 F1
3B83 E3
3B84 D3
3B85 D3
3B86 C3
3B87 C4
3B88 B4
3B89 C4
3B94 E8
3B95 E8
3B96 F7
3B97 F8
3B98 E7
5B20 F2
5B21 E2
5B22 E3
5B23 D3
5B24 D3
5B26 B3
5B27 B4
5B28 C3
5B39 C3
7B11-1 B6
7B11-2 B12
9B11 B13
9B12 E11
9B13 B11
9B14 B11
9B15 B4
9B16 B4
9B17 B2
9B18 B2
9B19 C2
9B20 C2
9B21 E2
9B22 E2
FB43 F7
FB45 E8
IB00 G5
IB01 G6
IB02 G6
IB03 C5
IB04 C4
IB05 B5
IB06 D4
IB21 D5
IB22 D5
IB23 D5
IB24 D13
IB41 F10
IB42 E8
IB43 E8
IB44 B11
IB46 D13

SSB (v2): HDMI: Supply


B11C HDMI: SUPPLY
B11C
+3V3
5B17
220R
FB57
3V3-APLL
2B50 47u 4V
2B52 100n
+3V3-AV
5B10
FB50
3V3-AVI
2B67 330u 6.3V
2B61 100n
5B11
FB51
3V3-PLL
2B68 47u 4V
2B69 100n
5B12
FB52
3V3-DIG
2B70 47u 4V
2B82 100n
5B13
FB53
3V3-HDMI
2B71 47u 4V
2B86 100n
7B20
LD1117DT18C
+3V3-HD
IN OUT
COM
2B72 100n
2B73 47u 4V
IB10
+3V3
9B38
+3V3-HD
7B38
LD1117DT33
+5V
2B38 1u0
2B39 47u 4V
9B32
RES
FB48
+3V3-AV
3V3-APLL (N7)
2B54 100n
(TDA 9975 pins)
3V3-AVI (M11) (N11) (M10) (N10) (M9) (N9) (P10) (P11) (N12)
2B40 2B41 2B42 2B43 2B44 2B45 2B46 2B47 2B48 100n
3V3-PLL (N13)
2B57 100n
3V3-DIG (F13) (D4) (E4) (F4) (G4) (H4) (J4) (K4) (L4) (M4) (E16)
2B49 2B51 2B53 2B55 2B56 2B58 2B60 2B83 2B87 2B59 2B94 100n
3V3-HDMI (D8) (D9) (D10) (D11) (D12) (D13) (D14)
2B62 2B63 2B64 2B66 2B85 100n
5B14 120R FB54 1V8-HDMI
2B74 47u 4V
2B88 100n
FB60
5B15 120R FB55 1V8-DIG
2B75 47u 4V
2B89 100n
5B16 120R FB56 1V8-PLL
2B76 47u 4V
2B77 100n
5B18 120R FB58 1V8-APLL
2B91 47u 4V
2B92 100n
1V8-HDMI (E12) (E13)
2B78 100n 2B79 100n
1V8-DIG (G13) (E6)
2B80 100n 2B81 100n
1V8-PLL (N14)
2B90 100n
1V8-APLL (M7)
2B93 100n
7B11-3
TDA9975
SUPPLY
3V3-APLL N7 VDDAPLL
1V8-APLL M7 VDD18APLL
M11 N11 VDDR
M10 N10 VDDG
3V3-AVI M9 N9 VDDB
P10 VDDBIAS
P11 VDDSOG
N12 VDDFRO
3V3-PLL N13 VDDPLL
1V8-PLL N14 VDD18PLL
E12 VDD18HDMI
1V8-HDMI E13 VDD18RRX
D8 VDDRX2A
D9 VDDRX2B
D10 VDDRX1A
3V3-HDMI D11 VDDRX1B
D12 VDDRX0A
D13 VDDRX0B
D14 VDDRXC
1V8-DIG G13 1 VDD18CORE
E6 2
IB45 T4 OTP7V
F13 VDDIN
D4 VDDQ0
E4 VDDQ1
F4 VDDQ3
3V3-DIG G4 VDDQ4
H4 VDDQ5
J4 VDDQ6
K4 VDDQ7
L4 VDDQ8
M4 VDDQ9
THERMAL GROUNDS
GNDAVI M5 N5 P5 R5 T5 M8 N8 P6 P7 P8 P9 R10 R11 M12 P12 P13 P14 P15 R15 T15
GNDAPLL M6 N6
GNDHDMI A8 B8 C8 B9 B10 B11 B12 B13 B14 B15 B16
GNDCORE E7 E8 E9 E10 E11
GNDI2C F12
GNDOUT C7 D6 D7 E5 F5 D5 G5 J5 K5 L5 H5
F6 G6 H6 J6 K6 L6 F7 G7 H7 J7 K7 L7 F8 G8 H8 J8 K8 L8 F9 G9 H9 J9 K9 L9 F10 G10 H10 J10 K10 L10 F11 G11 H11 J11 K11 L11
1 2 3 4 5 6 7 8 9
A B C D E F

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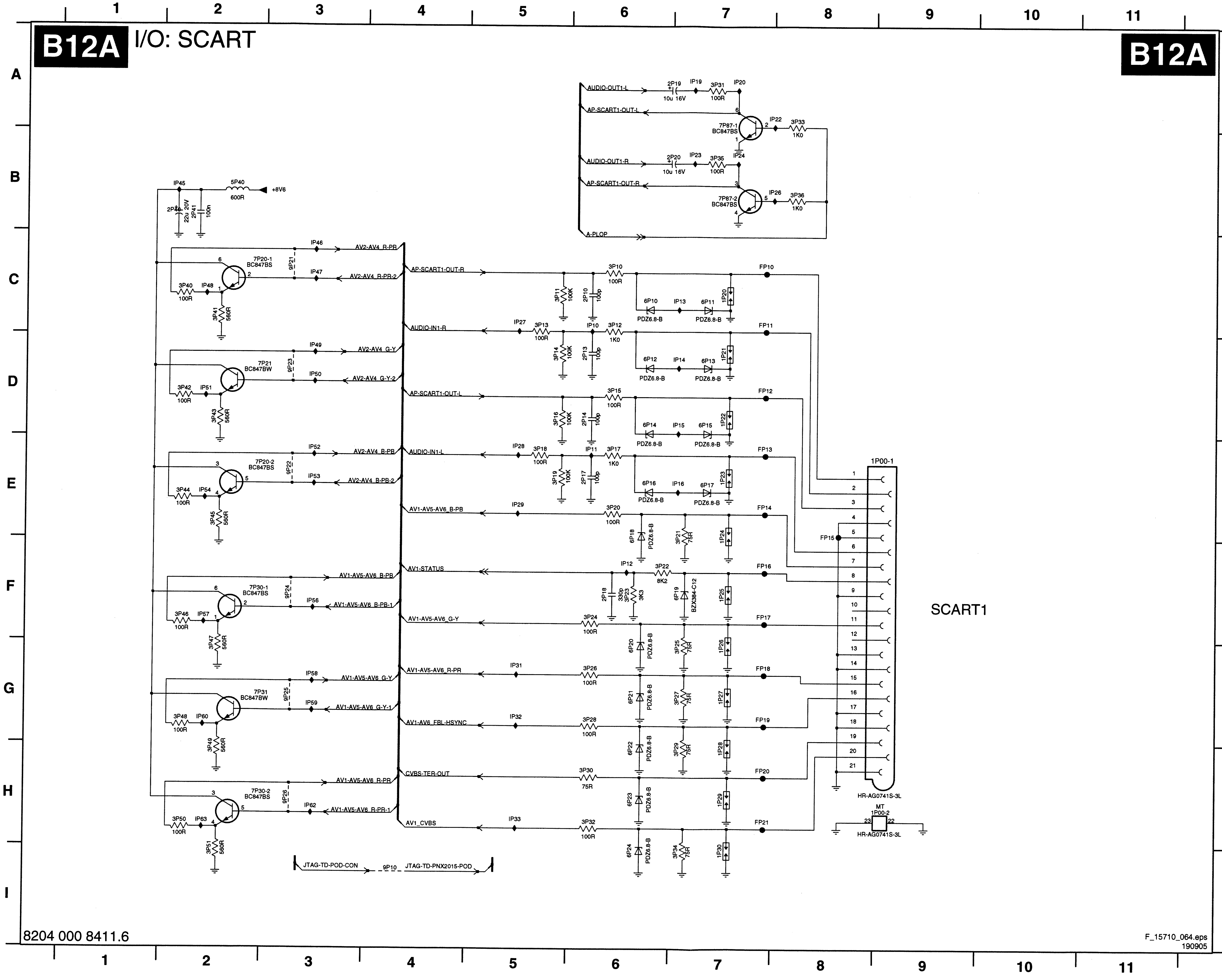
2B38	F1
2B39	F2
2B40	A3
2B41	A3
2B42	A4
2B43	A4
2B44	A4
2B45	A4
2B46	A4
2B47	A5
2B48	A5
2B49	C3
2B50	A2
2B51	C3
2B52	A2
2B53	C4
2B54	A3
2B55	C4
2B56	C4
2B57	B3
2B58	C4
2B59	C5
2B60	C4
2B61	B2
2B62	D3
2B63	D3
2B64	D4
2B66	D4
2B67	B2
2B68	B2
2B69	B2
2B70	C2
2B71	D2
2B72	D1
2B73	D2
2B74	D3
2B75	E3
2B76	F3
2B77	F3
2B78	D5
2B79	D5
2B80	E5
2B81	E5
2B82	C2
2B83	C5
2B85	D4
2B86	D2
2B87	C5
2B88	D3
2B89	E3
2B90	F5
2B91	F3
2B92	F3
2B93	F5
2B94	C5
5B10	A1
5B11	B1
5B12	C1
5B13	C1
5B14	D3
5B15	E3
5B16	E3
5B17	A1
5B18	F3
7B11-3	A8
7B20	D1
7B38	F1
9B32	F2
9B38	E1
FB48	F2
FB50	A2
FB51	B2
FB52	C2
FB53	C2
FB54	D3
FB55	E3
FB56	E3
FB57	A2
FB58	F3
FB60	E3
IB10	D2
IB45	D6

SSB: I/O: SCART


B12A
I/O: SCART
B12A
AUDIO-OUT1-L
AP-SCART1-OUT-L
AUDIO-OUT1-R
AP-SCART1-OUT-R
A-PLOP
7P87-1 BC847BS
7P87-2 BC847BS
5P40 600R
+8V6
AV2-AV4_R-PR
AV2-AV4_R-PR-2
AV2-AV4_G-Y
AV2-AV4_G-Y-2
AV2-AV4_B-PB
AV2-AV4_B-PB-2
AV1-AV5-AV6_B-PB
AV1-AV5-AV6_B-PB-1
AV1-AV5-AV6_G-Y
AV1-AV5-AV6_G-Y-1
AV1-AV5-AV6_R-PR
AV1-AV5-AV6_R-PR-1
7P20-1 BC847BS
7P21 BC847BW
7P20-2 BC847BS
7P30-1 BC847BS
7P31 BC847BW
7P30-2 BC847BS
AP-SCART1-OUT-R
AUDIO-IN1-R
AP-SCART1-OUT-L
AUDIO-IN1-L
AV1-AV5-AV6_B-PB
AV1-STATUS
AV1-AV5-AV6_G-Y
AV1-AV5-AV6_R-PR
AV1-AV6_FBL-HSYNC
CVBS-TER-OUT
AV1_CVBS
JTAG-TD-POD-CON
9P10
JTAG-TD-PNX2015-POD
1P00-1
SCART1
HR-AG0741S-3L
MT 1P00-2
HR-AG0741S-3L
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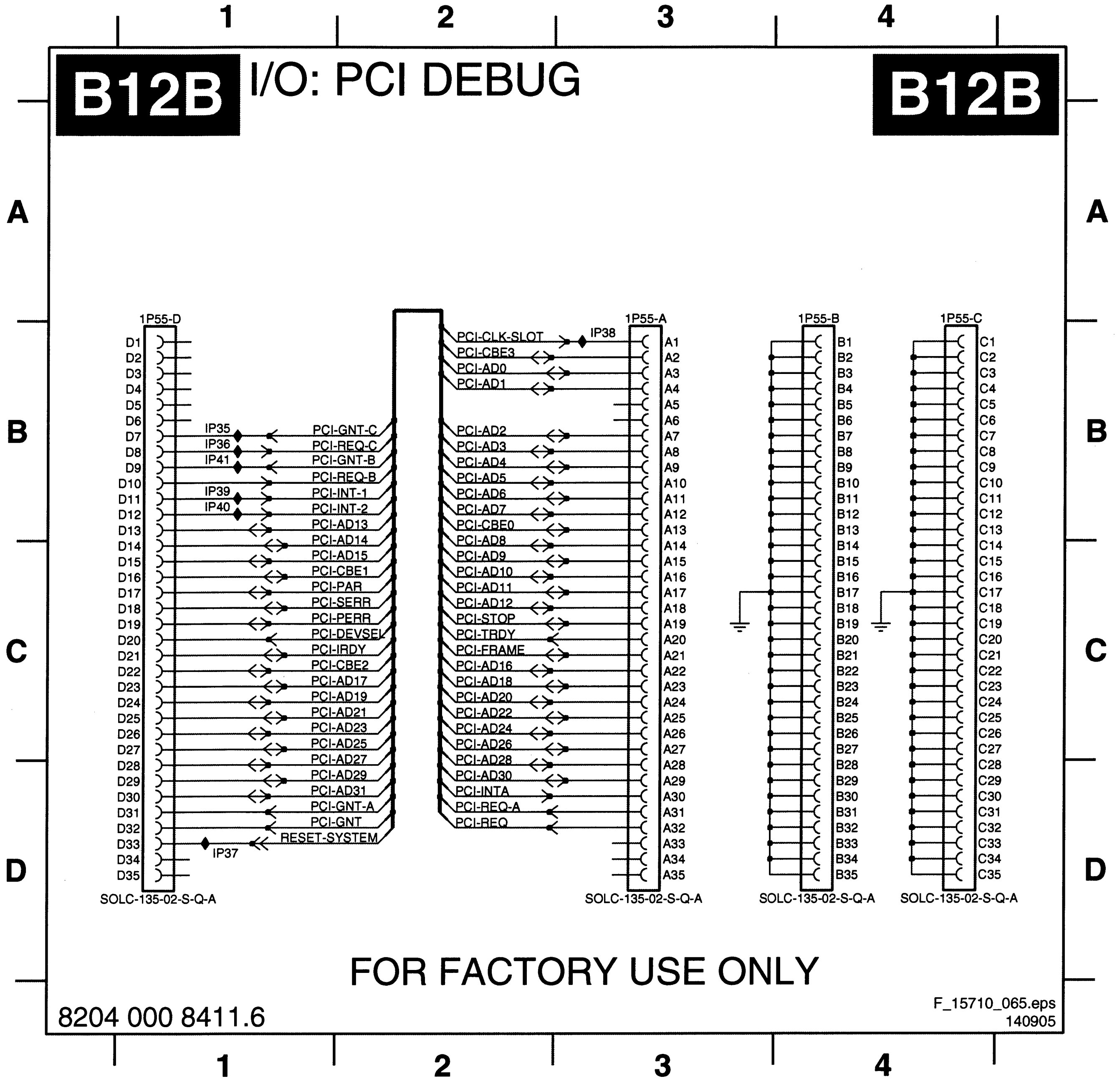
1P00-1	E8
1P00-2	H9
1P20	C7
1P21	D7
1P22	D7
1P23	E7
1P24	E7
1P25	F7
1P26	G7
1P27	G7
1P28	H7
1P29	H7
1P30	I7
2P10	C6
2P13	D6
2P14	D6
2P17	E6
2P18	F6
2P19	A6
2P20	B6
2P40	B2
2P41	B2
3P10	C6
3P11	C5
3P12	C6
3P13	C5
3P14	D5
3P15	D6
3P16	D5
3P17	E6
3P18	E5
3P19	E5
3P20	E6
3P21	E7
3P22	F6
3P23	F6
3P24	F6
3P25	G7
3P26	G6
3P27	G7
3P28	G6
3P29	H7
3P30	H6
3P31	A7
3P32	H6
3P33	A8
3P34	I7
3P35	B7
3P36	B8
3P40	C2
3P41	C2
3P42	D2
3P43	D2
3P44	E2
3P45	E2
3P46	F2
3P47	G2
3P48	G2
3P49	H2
3P50	H2
3P51	I2
5P40	B2
6P10	C6
6P11	C7
6P12	D6
6P13	D7
6P14	D6
6P15	D7
6P16	E6
6P17	E7
6P18	E6
6P19	F7
6P20	G6
6P21	G6
6P22	H6
6P23	H6
6P24	I6
7P20	C3
7P20	E3
7P21	D3
7P30	F3
7P30	H3
7P31	G3
7P87-1	A7
7P87-2	B7
9P10	I4
9P21	C3
9P22	E3
9P23	D3
9P24	F3
9P25	G3
9P26	H3
FP10	C7
FP11	C7
FP12	D7
FP13	E7
FP14	E7
FP15	E8
FP16	F7
FP17	F7
FP18	G7
FP19	G7
FP20	H7
FP21	H7
IP10	C6
IP11	E6
IP12	F6
IP13	C7
IP14	D7
IP15	D7
IP16	E7
IP19	A7
IP20	A7
IP22	A7
IP23	B7
IP24	B7
IP26	B7
IP27	C5
IP28	E5
IP29	E5
IP30	F5
IP31	G5
IP32	G5
IP33	H5
IP45	B2
IP46	C3
IP47	C3
IP48	C2
IP49	D3
IP50	D3
IP51	D2
IP52	E3
IP53	E3
IP54	E2
IP55	F3
IP56	F3
IP57	F2
IP58	G3
IP59	G3
IP60	G2
IP61	H3
IP62	H3
IP63	H2

SSB: I/O: PCI Debug

1P55-A B3	1P55-C B4	IP35 B1	IP37 D1	IP39 B1	IP41 B1
1P55-B B4	1P55-D B1	IP36 B1	IP38 B3	IP40 B1	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A
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B12B
I/O: PCI DEBUG
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1P55-D
D1
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D35
IP35
IP36
IP41
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IP40
IP37
PCI-GNT-C
PCI-REQ-C
PCI-GNT-B
PCI-REQ-B
PCI-INT-1
PCI-INT-2
PCI-AD13
PCI-AD14
PCI-AD15
PCI-CBE1
PCI-PAR
PCI-SERR
PCI-PERR
PCI-DEVSEL
PCI-IRDY
PCI-CBE2
PCI-AD17
PCI-AD19
PCI-AD21
PCI-AD23
PCI-AD25
PCI-AD27
PCI-AD29
PCI-AD31
PCI-GNT-A
PCI-GNT
RESET-SYSTEM
SOLC-135-02-S-Q-A
PCI-CLK-SLOT
IP38
PCI-CBE3
PCI-AD0
PCI-AD1
PCI-AD2
PCI-AD3
PCI-AD4
PCI-AD5
PCI-AD6
PCI-AD7
PCI-CBE0
PCI-AD8
PCI-AD9
PCI-AD10
PCI-AD11
PCI-AD12
PCI-STOP
PCI-TRDY
PCI-FRAME
PCI-AD16
PCI-AD18
PCI-AD20
PCI-AD22
PCI-AD24
PCI-AD26
PCI-AD28
PCI-AD30
PCI-INTA
PCI-REQ-A
PCI-REQ
1P55-A
A1
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SOLC-135-02-S-Q-A
1P55-B
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SOLC-135-02-S-Q-A
1P55-C
C1
C2
C3
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C6
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C35
SOLC-135-02-S-Q-A
FOR FACTORY USE ONLY
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Personal Notes:

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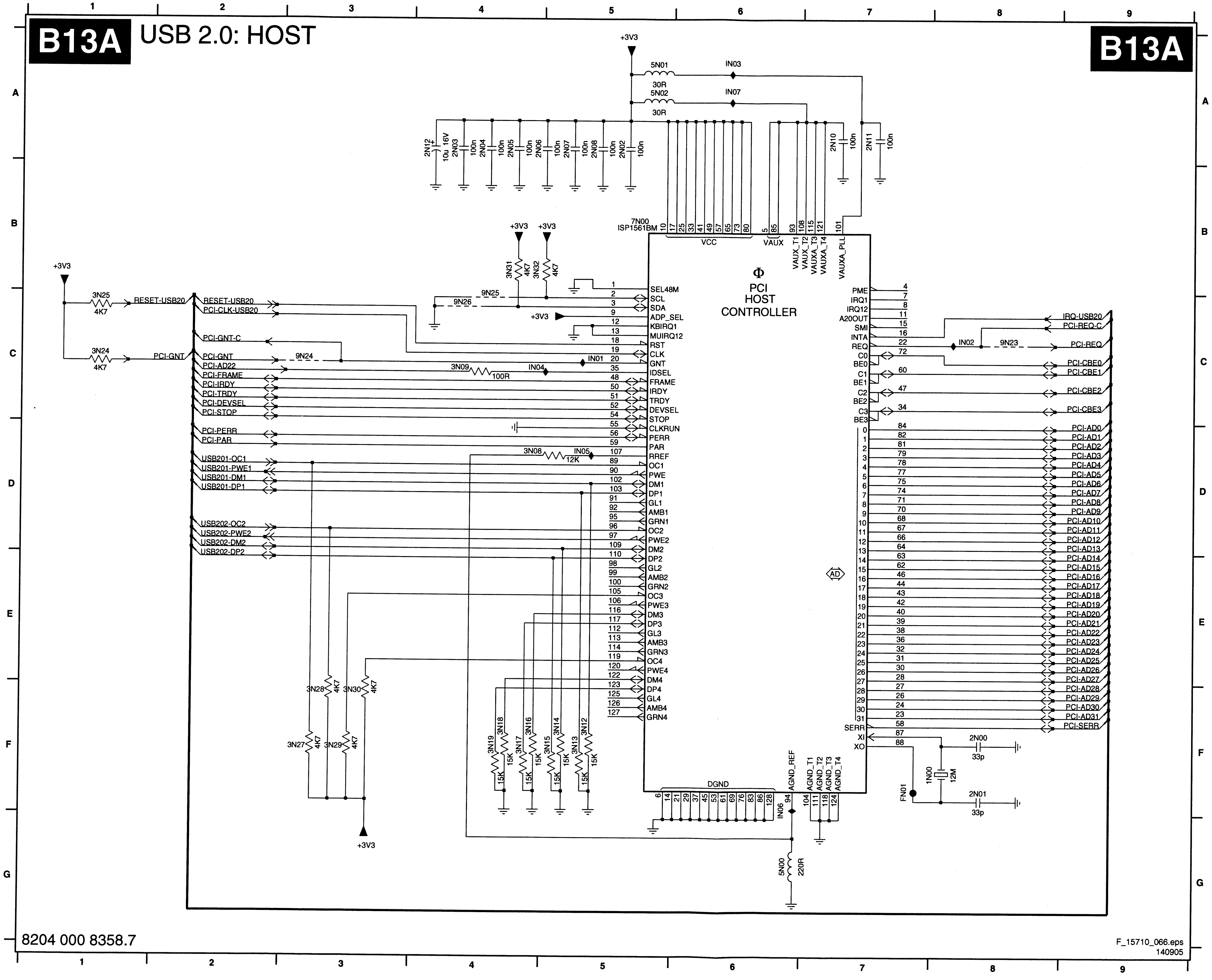
131004

SSB2: USB 2.0: Host

1N00	F8
2N00	F8
2N01	F8
2N02	A5
2N03	A4
2N04	A4
2N05	A4
2N06	A4
2N07	A5
2N08	A5
2N10	A7
2N11	A7
2N12	A4
3N08	D4
3N09	C4
3N12	F5
3N13	F5
3N14	F5
3N15	F5
3N16	F4
3N17	F4
3N18	F4
3N19	F4
3N24	C1
3N25	C1
3N27	F3
3N28	F3
3N29	F3
3N30	F3
3N31	B4
3N32	B4
5N00	G6
5N01	A5
5N02	A5
7N00	B5
9N23	C8
9N24	C3
9N25	C4
9N26	C4
FN01	F7
IN01	C5
IN02	C8
IN03	A6
IN04	C4
IN05	D5
IN06	F6
IN07	A6


B13A
USB 2.0: HOST
B13A
+3V3
5N01
30R
5N02
30R
IN03
IN07
2N12 10u 16V
2N03 100n
2N04 100n
2N05 100n
2N06 100n
2N07 100n
2N08 100n
2N02 100n
2N10 100n
2N11 100n
7N00
ISP1561BM
VCC
VAUX
VAUX_T1
VAUX_T2
VAUXA_T3
VAUXA_T4
VAUXA_PLL
Φ
PCI
HOST
CONTROLLER
3N31 4K7
3N32 4K7
3N25 4K7
3N24 4K7
RESET-USB20
PCI-CLK-USB20
PCI-GNT-C
PCI-GNT
PCI-AD22
PCI-FRAME
PCI-IRDY
PCI-TRDY
PCI-DEVSEL
PCI-STOP
PCI-PERR
PCI-PAR
USB201-OC1
USB201-PWE1
USB201-DM1
USB201-DP1
USB202-OC2
USB202-PWE2
USB202-DM2
USB202-DP2
9N25
9N26
9N24
3N09 100R
IN04
IN01
3N08 12K
IN05
SEL48M
SCL
SDA
ADP_SEL
KBIRQ1
MUIRQ12
RST
CLK
GNT
IDSEL
FRAME
IRDY
TRDY
DEVSEL
STOP
CLKRUN
PERR
PAR
RREF
OC1
PWE
DM1
DP1
GL1
AMB1
GRN1
OC2
PWE2
DM2
DP2
GL2
AMB2
GRN2
OC3
PWE3
DM3
DP3
GL3
AMB3
GRN3
OC4
PWE4
DM4
DP4
GL4
AMB4
GRN4
PME
IRQ1
IRQ12
A20OUT
SMI
INTA
REQ
C0 BE0
C1 BE1
C2 BE2
C3 BE3
AD
SERR
XI
XO
IRQ-USB20
PCI-REQ-C
IN02
9N23
PCI-REQ
PCI-CBE0
PCI-CBE1
PCI-CBE2
PCI-CBE3
PCI-AD0
PCI-AD1
PCI-AD2
PCI-AD3
PCI-AD4
PCI-AD5
PCI-AD6
PCI-AD7
PCI-AD8
PCI-AD9
PCI-AD10
PCI-AD11
PCI-AD12
PCI-AD13
PCI-AD14
PCI-AD15
PCI-AD16
PCI-AD17
PCI-AD18
PCI-AD19
PCI-AD20
PCI-AD21
PCI-AD22
PCI-AD23
PCI-AD24
PCI-AD25
PCI-AD26
PCI-AD27
PCI-AD28
PCI-AD29
PCI-AD30
PCI-AD31
PCI-SERR
2N00 33p
2N01 33p
1N00 12M
FN01
3N28 4K7
3N30 4K7
3N27 4K7
3N29 4K7
3N19 15K
3N18 15K
3N17 15K
3N16 15K
3N15 15K
3N14 15K
3N13 15K
3N12 15K
DGND
AGND_REF
AGND_T1
AGND_T2
AGND_T3
AGND_T4
IN06
5N00 220R
A
B
C
D
E
F
G
1
2
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9

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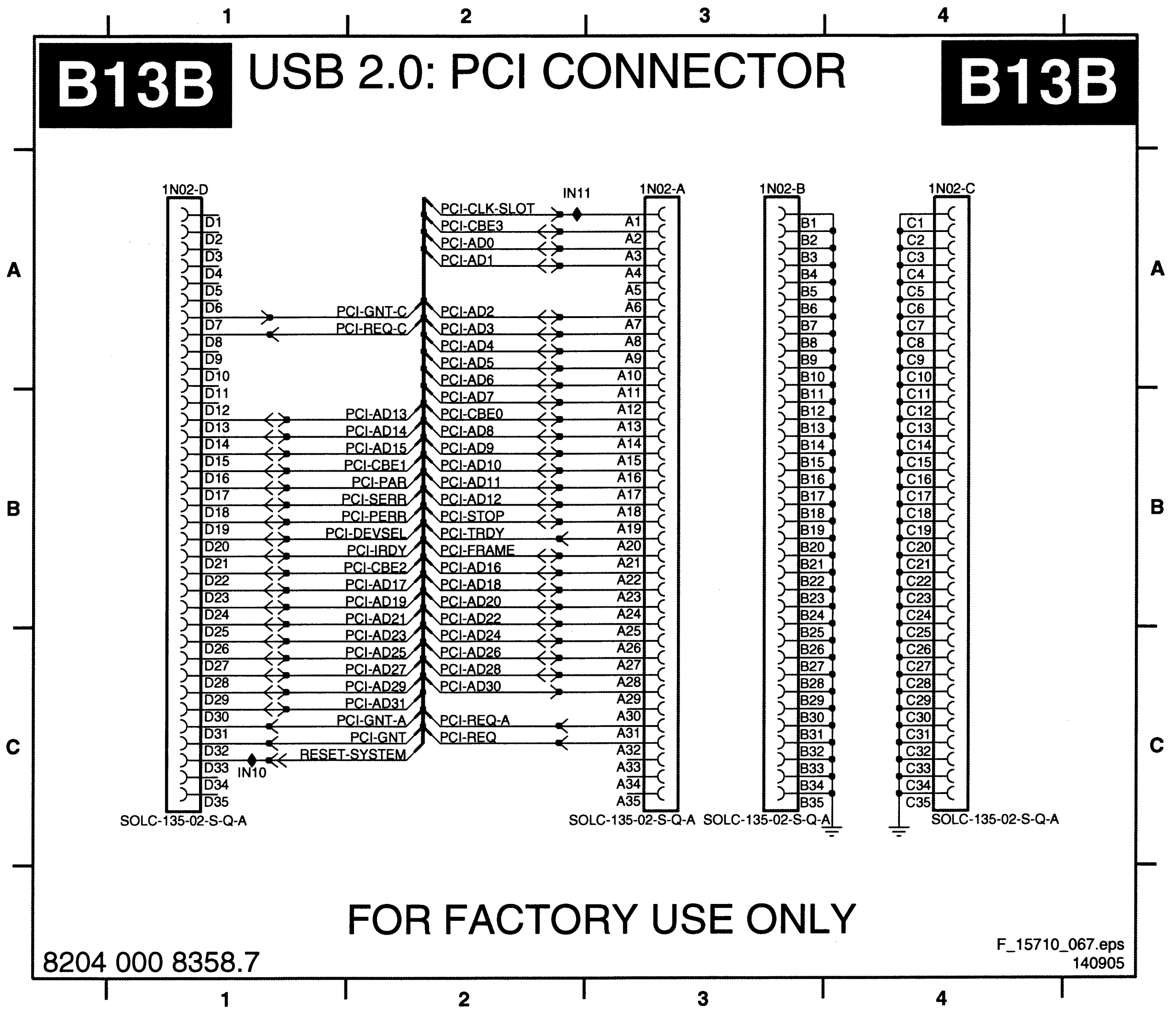
SSB: USB 2.0: PCI Connector


B13B
USB 2.0: PCI CONNECTOR
B13B
1
2
3
4
A
B
C
1N02-D
1N02-A
1N02-B
1N02-C
IN11
IN10
PCI-CLK-SLOT
PCI-CBE3
PCI-AD0
PCI-AD1
PCI-GNT-C
PCI-REQ-C
PCI-AD2
PCI-AD3
PCI-AD4
PCI-AD5
PCI-AD6
PCI-AD7
PCI-AD13
PCI-AD14
PCI-AD15
PCI-CBE1
PCI-PAR
PCI-SERR
PCI-PERR
PCI-DEVSEL
PCI-IRDY
PCI-CBE2
PCI-AD17
PCI-AD19
PCI-AD21
PCI-AD23
PCI-AD25
PCI-AD27
PCI-AD29
PCI-AD31
PCI-GNT-A
PCI-GNT
RESET-SYSTEM
PCI-CBE0
PCI-AD8
PCI-AD9
PCI-AD10
PCI-AD11
PCI-AD12
PCI-STOP
PCI-TRDY
PCI-FRAME
PCI-AD16
PCI-AD18
PCI-AD20
PCI-AD22
PCI-AD24
PCI-AD26
PCI-AD28
PCI-AD30
PCI-REQ-A
PCI-REQ
D1 … D35
A1 … A35
B1 … B35
C1 … C35
SOLC-135-02-S-Q-A
SOLC-135-02-S-Q-A
SOLC-135-02-S-Q-A
SOLC-135-02-S-Q-A
FOR FACTORY USE ONLY
8204 000 8358.7
F_15710_067.eps
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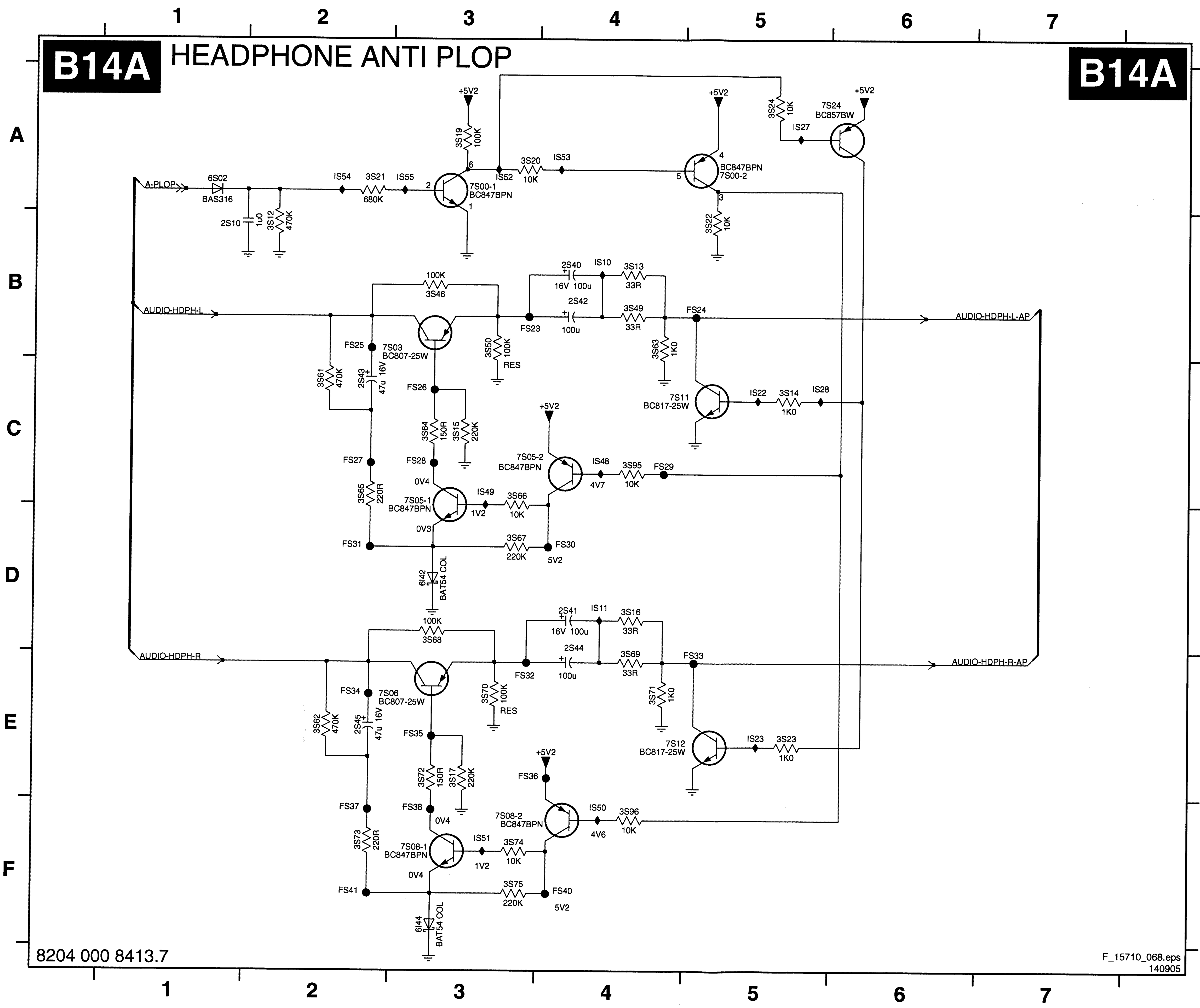
1N02-A	A3
1N02-B	A3
1N02-C	A4
1N02-D	A1
IN10	C1
IN11	A2

Personal Notes:

E_06532_012.eps
131004

SSB2: Headphone Antiplop


B14A
HEADPHONE ANTI PLOP
B14A
1 2 3 4 5 6 7
A B C D E F
A-PLOP
6S02
BAS316
2S10
1u0
3S12
470K
IS54
3S21
680K
IS55
+5V2
3S19
100K
7S00-1
BC847BPN
IS52
3S20
10K
IS53
7S00-2
BC847BPN
3S22
10K
3S24
10K
IS27
7S24
BC857BW
AUDIO-HDPH-L
100K
3S46
7S03
BC807-25W
FS25
3S61
470K
2S43
47u 16V
FS26
3S64
150R
3S15
220K
FS27
FS28
3S65
220R
0V4
7S05-1
BC847BPN
IS49
3S66
10K
1V2
0V3
FS31
3S67
220K
FS30
5V2
6I42
BAT54 COL
3S50
100K
RES
2S40
16V 100u
IS10
3S13
33R
2S42
100u
FS23
3S49
33R
FS24
3S63
1K0
7S11
BC817-25W
IS22
3S14
1K0
IS28
7S05-2
BC847BPN
IS48
4V7
3S95
10K
FS29
AUDIO-HDPH-L-AP
AUDIO-HDPH-R
100K
3S68
7S06
BC807-25W
FS34
3S62
470K
2S45
47u 16V
FS35
3S72
150R
3S17
220K
FS37
FS38
3S73
220R
0V4
7S08-1
BC847BPN
IS51
3S74
10K
1V2
0V4
FS41
3S75
220K
FS40
5V2
6I44
BAT54 COL
3S70
100K
RES
2S41
16V 100u
IS11
3S16
33R
2S44
100u
FS32
3S69
33R
FS33
3S71
1K0
7S12
BC817-25W
IS23
3S23
1K0
FS36
7S08-2
BC847BPN
IS50
4V6
3S96
10K
AUDIO-HDPH-R-AP
8204 000 8413.7
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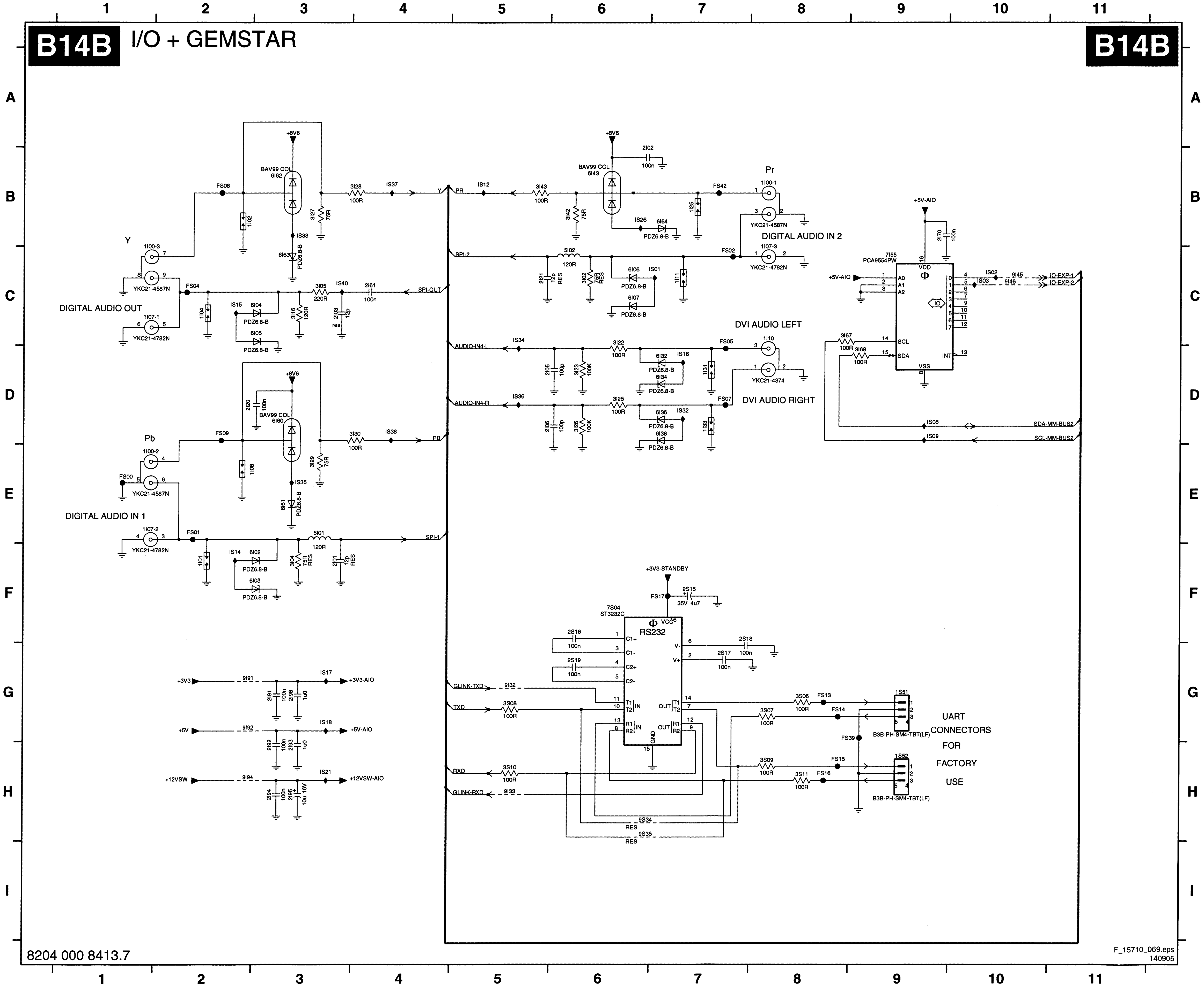
2S10	B1
2S40	B4
2S41	D4
2S42	B4
2S43	C2
2S44	D4
2S45	E2
3S12	B2
3S13	B4
3S14	C5
3S15	C3
3S16	D4
3S17	E3
3S19	A3
3S20	A3
3S21	A2
3S22	B5
3S23	E5
3S24	A5
3S46	B3
3S49	B4
3S50	B3
3S61	C2
3S62	E2
3S63	B4
3S64	C3
3S65	C2
3S66	C3
3S67	D3
3S68	D3
3S69	E4
3S70	E3
3S71	E4
3S72	E3
3S73	F2
3S74	F3
3S75	F3
3S95	C4
3S96	F4
6I42	D3
6I44	F3
6S02	A1
7S00-1	A3
7S00-2	A5
7S03	B2
7S05-1	C3
7S05-2	C4
7S06	E2
7S08-1	F3
7S08-2	F3
7S11	C5
7S12	E5
7S24	A5
FS23	B3
FS24	B5
FS25	B2
FS26	C3
FS27	C2
FS28	C3
FS29	C4
FS30	D4
FS31	D2
FS32	E3
FS33	E5
FS34	E2
FS35	E3
FS36	E3
FS37	F2
FS38	F3
FS40	F4
FS41	F2
IS10	B4
IS11	D4
IS22	C5
IS23	E5
IS27	A5
IS28	C5
IS48	C4
IS49	C3
IS50	F4
IS51	F3
IS52	A3
IS53	A4
IS54	A2
IS55	A3

SSB: I/O + Gemstar


B14B
I/O + GEMSTAR
B14B
Y
Pb
Pr
DIGITAL AUDIO OUT
DIGITAL AUDIO IN 1
DIGITAL AUDIO IN 2
DVI AUDIO LEFT
DVI AUDIO RIGHT
UART CONNECTORS FOR FACTORY USE
BAV99 COL 6162
BAV99 COL 6143
BAV99 COL 6160
YKC21-4587N
YKC21-4782N
YKC21-4374
7155 PCA9554PW
7S04 ST3232C
RS232
B3B-PH-SM4-TBT(LF)
+8V6
+5V-AIO
+3V3-STANDBY
+3V3
+3V3-AIO
+5V
+12VSW
+12VSW-AIO
SPI-OUT
SPI-2
SPI-1
AUDIO-IN4-L
AUDIO-IN4-R
IO-EXP-1
IO-EXP-2
SDA-MM-BUS2
SCL-MM-BUS2
GLINK-TXD
TXD
RXD
GLINK-RXD
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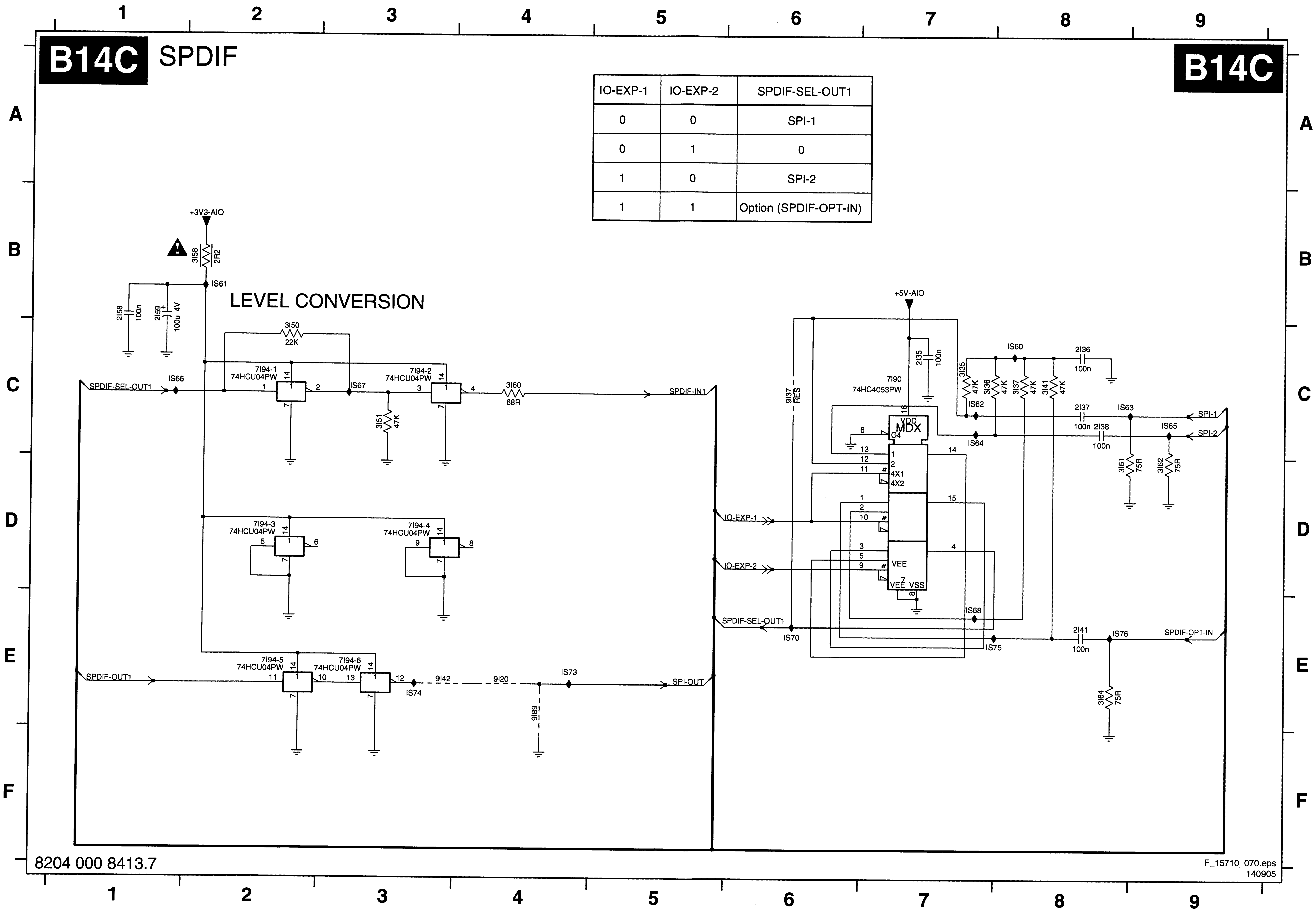
1100-1	B8
1100-2	E1
1100-3	C1
1101	F2
1102	B2
1104	C2
1107-1	C1
1107-2	E1
1107-3	C8
1108	E2
1110	C8
1111	C7
1125	B7
1131	D7
1133	D7
1S51	G9
1S52	H9
2101	F3
2102	A6
2103	C3
2105	D5
2106	D5
2120	D2
2121	C5
2161	C4
2170	B9
2191	G3
2192	H3
2193	H3
2194	H3
2195	H3
2198	G3
2S15	F7
2S16	F6
2S17	G7
2S18	F7
2S19	G6
3102	C6
3104	F3
3105	C3
3116	C3
3122	C6
3123	D6
3125	D6
3126	D6
3127	B3
3128	B4
3129	E3
3130	D4
3142	B6
3143	B5
3167	C8
3168	D9
3S06	G8
3S07	G8
3S08	G5
3S09	H8
3S10	H5
3S11	H8
5101	E3
5102	C6
6102	F3
6103	F3
6104	C3
6105	C3
6106	C6
6107	C6
6132	D7
6134	D7
6136	D7
6138	D7
6143	B6
6160	D3
6161	E3
6162	B3
6163	C3
6164	B7
7155	C9
7S04	F6
9132	G5
9133	H5
9145	C10
9146	C10
9191	G2
9192	G2
9194	H2
9S34	H6
9S35	H6
FS00	E1
FS01	E2
FS02	C7
FS04	C2
FS05	C7
FS07	D7
FS08	B2
FS09	D2
FS13	G8
FS14	G8
FS15	H8
FS16	H8
FS17	F7
FS39	G8
FS42	B7
IS01	C7
IS02	C10
IS03	C10
IS08	D9
IS09	D9
IS12	B5
IS14	F2
IS15	C2
IS16	D7
IS17	G3
IS18	G3
IS21	H3
IS26	B6
IS32	D7
IS33	B3
IS34	C5
IS35	E3
IS36	D5
IS37	B4
IS38	D4
IS40	C3

SSB: SPDIF


B14C
SPDIF
B14C
LEVEL CONVERSION
+3V3-AIO
3158
2R2
IS61
2158
100n
2159
100u 4V
3150
22K
SPDIF-SEL-OUT1
IS66
7194-1
74HCU04PW
IS67
3151
47K
7194-2
74HCU04PW
3160
68R
SPDIF-IN1
7194-3
74HCU04PW
7194-4
74HCU04PW
7194-5
74HCU04PW
7194-6
74HCU04PW
SPDIF-OUT1
IS74
9142
9120
IS73
9189
SPI-OUT
+5V-AIO
2135
100n
9137
RES
7190
74HC4053PW
VDD
MDX
G4
4X1
4X2
VEE
VSS
IS60
2136
100n
3135
47K
3136
47K
3137
47K
3141
47K
IS62
2137
100n
IS63
SPI-1
IS64
2138
100n
IS65
SPI-2
3161
75R
3162
75R
IO-EXP-1
IO-EXP-2
SPDIF-SEL-OUT1
IS70
IS68
IS75
2141
100n
IS76
SPDIF-OPT-IN
3164
75R
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9
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IO-EXP-1	IO-EXP-2	SPDIF-SEL-OUT1
0	0	SPI-1
0	1	0
1	0	SPI-2
1	1	Option (SPDIF-OPT-IN)

2135	C7
2136	C8
2137	C8
2138	C8
2141	E8
2158	B1
2159	B1
3135	C7
3136	C7
3137	C8
3141	C8
3150	C2
3151	C3
3158	B2
3160	C4
3161	D8
3162	D9
3164	E8
7190	C7
7194-1	C2
7194-2	C3
7194-3	D2
7194-4	D3
7194-5	E2
7194-6	E3
9120	E4
9137	C6
9142	E3
9189	E4
IS60	C8
IS61	B2
IS62	C7
IS63	C8
IS64	C7
IS65	C9
IS66	C1
IS67	C3
IS68	E7
IS70	E6
IS73	E4
IS74	E3
IS75	E7
IS76	E8

SSB: Ethernet (Optional)

1000 C7
1010 A10
2000 D7
2001 D7

2002 H3
2003 H3
2004 A11
2005 A12

2006 D12
2007 D11
2010 E2
2011 G9

2012 G8
2013 B8
2014 B9
2015 B10

2016 C8
2017 G8
2018 G9
2019 H10

2020 H11
2021 G12
2022 H12
2023 H12

2024 G11
2025 G11
2026 H11
2027 H11

2028 H12
3000 C7
3001 C7
3002 D2

3003 C7
3004 E7
3005 F7
3006 F8

3007 D1
3008 D1
3009 A11
3010 C11

3011 D8
3012 D8
3013 D9
3014 D9

3021 A8
3022 A8
3023 A9
3024 A9

3025 B8
3026 B8
3027 C8
3028 C8

5000 G8
5001 G8
6000 F7
6001 F7

7000-1 B3
7000-2 H7
9016 C9
F001 A9

F002 B9
F003 B9
F004 C9
F005 C10

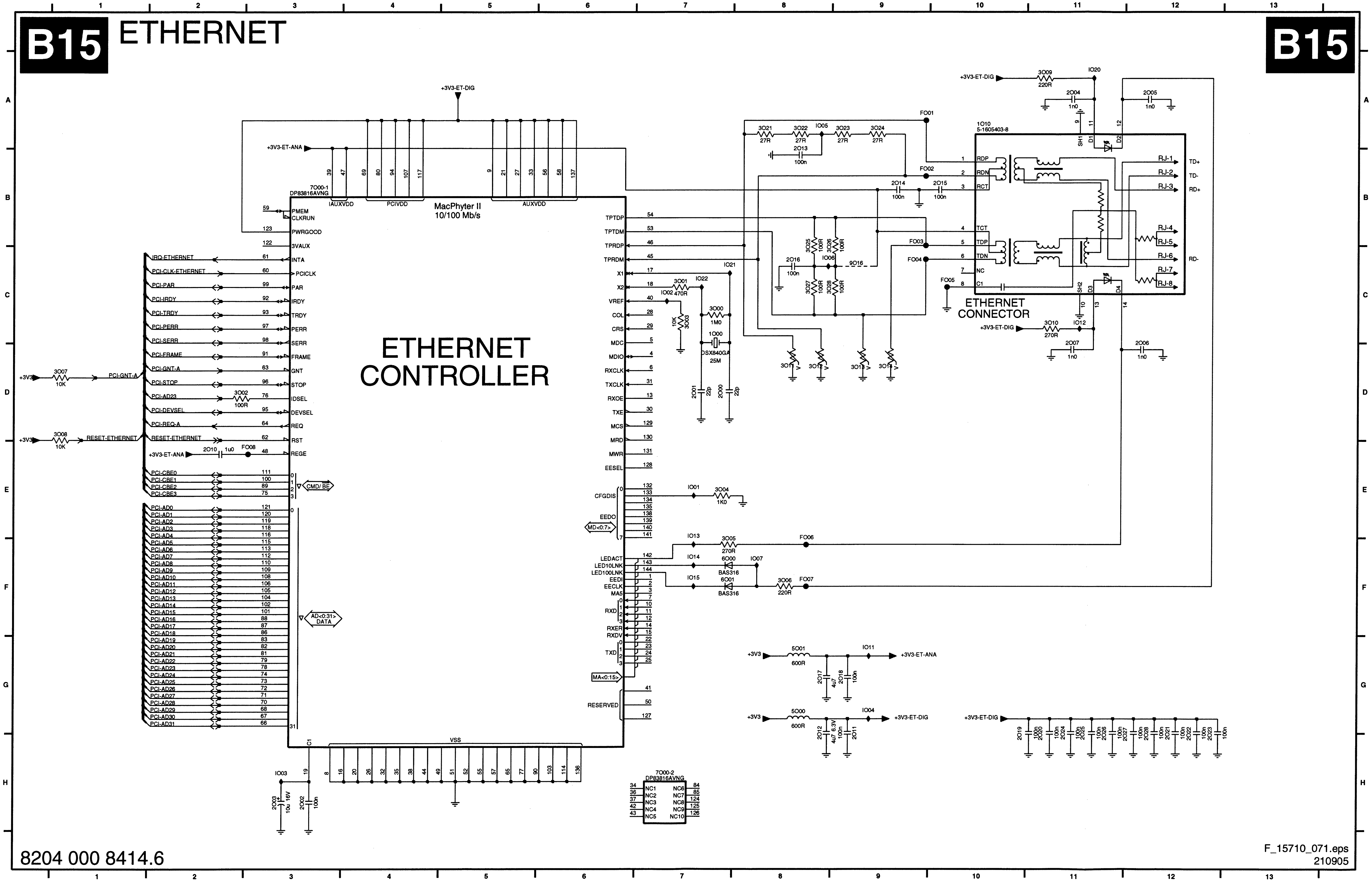
F006 F8
F007 F8
F008 E3
I001 E7

I002 C7
I003 H3
I004 G9
I005 A8

I006 C8
I007 F8
I011 G9
I012 C11

I013 E7
I014 F7
I015 F7
I020 A11

I021 C7
I022 C7



B15
ETHERNET
B15
ETHERNET CONTROLLER
7000-1
DP83816AVNG
MacPhyter II
10/100 Mb/s
IAUXVDD
PCIVDD
AUXVDD
VSS
+3V3-ET-DIG
+3V3-ET-ANA
PMEM
CLKRUN
PWRGOOD
3VAUX
INTA
PCICLK
PAR
IRDY
TRDY
PERR
SERR
FRAME
GNT
STOP
IDSEL
DEVSEL
REQ
RST
REGE
IRQ-ETHERNET
PCI-CLK-ETHERNET
PCI-PAR
PCI-IRDY
PCI-TRDY
PCI-PERR
PCI-SERR
PCI-FRAME
PCI-GNT-A
PCI-STOP
PCI-AD23
PCI-DEVSEL
PCI-REQ-A
RESET-ETHERNET
PCI-CBE0
PCI-CBE1
PCI-CBE2
PCI-CBE3
CMD/BE
PCI-AD0 … PCI-AD31
AD<0:31>
DATA
+3V3
3007
10K
3008
10K
3002
100R
2010
1u0
F008
TPTDP
TPTDM
TPRDP
TPRDM
X1
X2
VREF
COL
CRS
MDC
MDIO
RXCLK
TXCLK
RXOE
TXE
MCS
MRD
MWR
EESEL
CFGDIS
EEDO
MD<0:7>
LEDACT
LED10LNK
LED100LNK
EEDI
EECLK
MA5
RXD
RXER
RXDV
TXD
MA<0:15>
RESERVED
3001
470R
I002
I021
I022
3003
10K
3000
1M0
1000
DSX840GA
25M
2001
22p
2000
22p
I001
3004
1K0
I013
3005
270R
F006
I014
6000
BAS316
I007
I015
6001
BAS316
3006
220R
F007
3021
27R
3022
27R
I005
3023
27R
3024
27R
2013
100n
F001
F002
2014
100n
2015
100n
3025
100R
3026
100R
3027
100R
3028
100R
I006
2016
100n
9016
F003
F004
F005
3011
3012
3013
3014
3009
220R
I020
2004
1n0
2005
1n0
1010
5-1605403-8
RDP
RDN
RCT
TCT
TDP
TDN
NC
C1
SH1
SH2
D1
D2
D3
D4
RJ-1
RJ-2
RJ-3
RJ-4
RJ-5
RJ-6
RJ-7
RJ-8
TD+
TD-
RD+
RD-
ETHERNET CONNECTOR
3010
270R
I012
2007
1n0
2006
1n0
5001
600R
I011
2017
4u7
2018
100n
5000
600R
I004
2012
4u7 6.3V
2011
100n
2019
2020
2024
2025
2026
2027
2028
2021
2022
2023
100n
I003
2003
10u 16V
2002
100n
7000-2
DP83816AVNG
NC1
NC2
NC3
NC4
NC5
NC6
NC7
NC8
NC9
NC10
A
B
C
D
E
F
G
H
1
2
3
4
5
6
7
8
9
10
11
12
13

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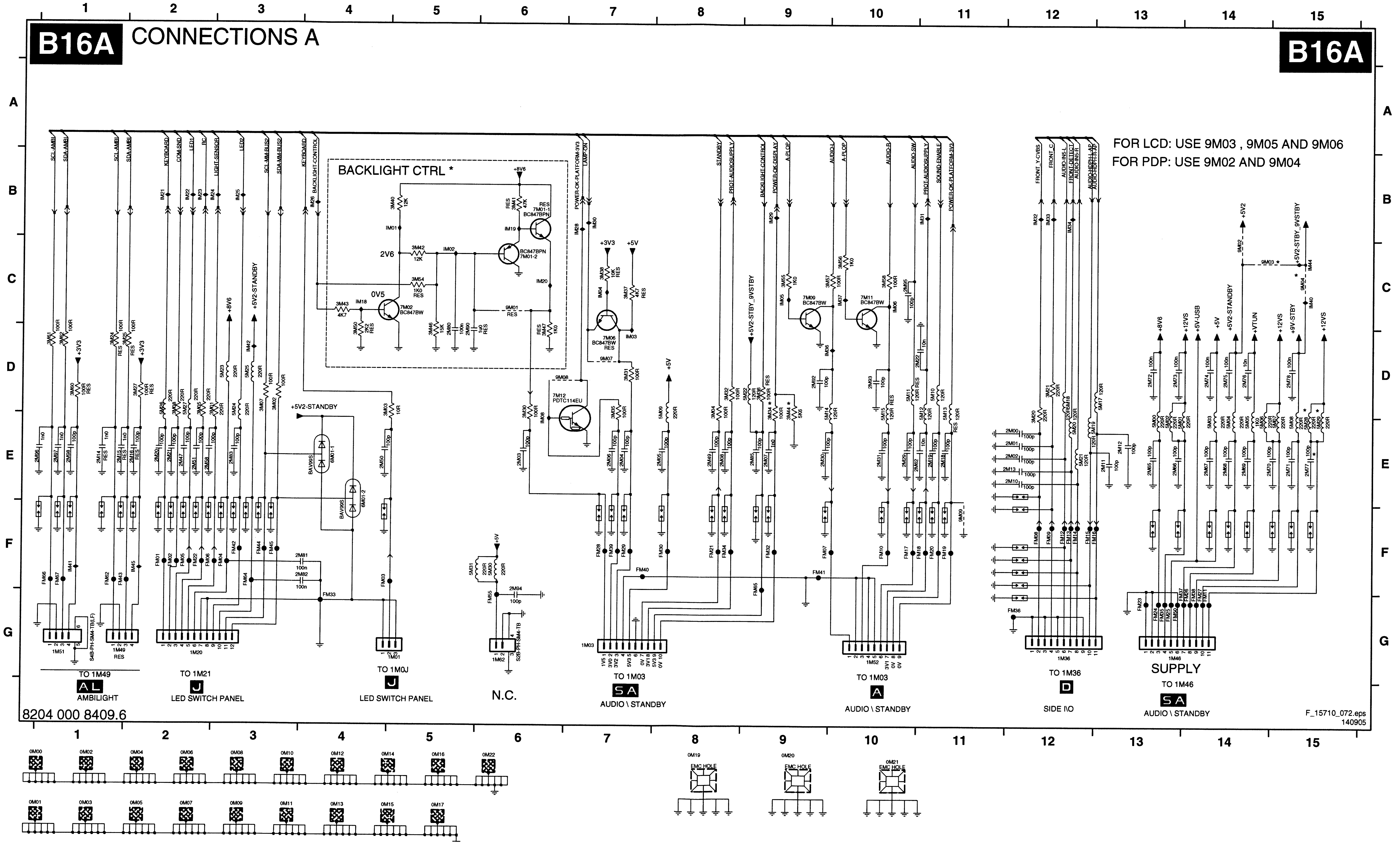
SSB (v2): Connections A

1M01 G5
1M03 G7
1M20 G2
1M36 G12
1M46 G13
1M49 G1
1M51 G1
1M52 G10
1M62 G6
2M00 E12
2M01 E12
2M02 E12
2M03 E6
2M04 E7
2M05 E8
2M06 E7
2M07 E9
2M08 E8
2M10 E12
2M11 E13
2M12 E13
2M13 E12
2M14 E1
2M15 E1
2M16 E2
2M18 E11
2M19 E11
2M20 E2
2M21 E2
2M22 D11
2M29 E10
2M30 E9
2M31 E10
2M47 E2
2M49 E8
2M50 E4
2M51 E2
2M58 E2
2M62 E11
2M65 E13
2M66 E13
2M67 E14
2M68 E14
2M69 E14
2M70 E15
2M71 E15
2M72 D13
2M73 D13
2M74 D14
2M75 D14
2M76 D14
2M77 E15
2M78 D15
2M80 D5
2M81 F4
2M82 F4
2M83 E3
2M85 E9
2M90 D5
2M92 D9
2M93 D10
2M94 F6
2M95 C10
2M96 E1
2M97 E1
2M98 E1
3M01 D3
3M02 D3
3M03 D4
3M04 D8
3M05 D2
3M07 D3
3M08 D2
3M20 D12
3M21 D12
3M24 D1
3M25 D2
3M27 D2
3M30 D6
3M31 D7
3M32 D8
3M34 D9
3M35 D7
3M36 D9
3M37 C7
3M38 C7
3M40 B5
3M41 B6
3M42 C5
3M43 C4
3M44 D9
3M46 D5
3M47 D6
3M50 D4
3M54 C5
3M55 C9
3M56 C10
3M57 C9
3M58 C10
3M60 D1
3M61 D1
3M62 D1
5M00 E13
5M01 E13
5M02 E13
5M03 E14
5M04 E14
5M05 E14
5M06 E14
5M07 E15
5M08 E15
5M09 D8
5M10 D11
5M11 D10
5M12 D11
5M13 D11
5M14 D9
5M15 D10
5M17 D13
5M18 D12
5M19 E13
5M20 E12
5M21 E12
5M22 D9
5M23 D3
5M24 D3
5M25 D3
5M26 D2
5M27 D2
5M28 E15
5M29 E15
5M30 F6
5M31 F5
6M01-1 E4
6M01-2 E4
7M01-1 B6
7M01-2 C6
7M02 C5
7M06 D7
7M09 C9
7M11 C10
7M12 D6
9M01 C6
9M02 C14
9M03 C14
9M04 C15
9M07 D7
9M08 D6
9M09 F11
FM01 F2
FM02 F2
FM03 F4
FM04 F3
FM05 F2
FM06 F2
FM07 F9
FM08 F12
FM09 F12
FM10 F10
FM11 F14
FM12 F12
FM13 F12
FM14 F12
FM15 F12
FM16 F13
FM17 F10
FM18 F11
FM19 F11
FM20 F11
FM21 F8
FM22 F2
FM23 G13
FM24 G13
FM25 G13
FM26 F14
FM27 F14
FM28 F7
FM29 F7
FM30 F8
FM32 F9
FM33 G4
FM34 F8
FM35 G13
FM36 G12
FM37 F14
FM38 F14
FM39 F7
FM40 F7
FM41 F9
FM42 F3
FM43 F1
FM44 F3
FM45 F3
FM50 G13
FM55 G6
FM62 F1
FM64 F3
FM65 F9
FM66 F1
FM67 F1
IM01 B5
IM02 C5
IM03 D7
IM04 C7
IM05 C9
IM06 C10
IM08 E6
IM18 C4
IM19 B6
IM20 C6
IM21 B2
IM22 B2
IM23 B2
IM24 B2
IM25 B3
IM26 B4
IM28 B7
IM29 B9
IM30 B7
IM31 B11
IM32 B12
IM33 B12
IM34 B12
IM36 D9
IM37 C10
IM40 C15
IM41 F1
IM42 D3
IM44 C15
IM45 F2


B16A
CONNECTIONS A
B16A
BACKLIGHT CTRL *
FOR LCD: USE 9M03 , 9M05 AND 9M06
FOR PDP: USE 9M02 AND 9M04
SCL-AMBI
SDA-AMBI
KEYBOARD
COM-SND
LED1
RC
LIGHT-SENSOR
LED2
SCL-MM-BUS2
SDA-MM-BUS2
BACKLIGHT-CONTROL
POWER-OK-PLATFORM-3V3
LAMP-ON
STANDBY
PROT-AUDIOSUPPLY
POWER-OK-DISPLAY
A-PLOP
AUDIO-L
AUDIO-R
AUDIO-SW
SOUND-ENABLE
POWER-OK-PLATFORM-3V3
FRONT_Y-CVBS
FRONT_C
AUDIO-IN5-L
FRONT-DETECT
AUDIO-IN5-R
AUDIO-HDPH-L-AP
AUDIO-HDPH-R-AP
+8V6
+3V3
+5V
+5V2-STANDBY
+5V2-STBY_9VSTBY
+12VS
+5V-USB
+VTUN
+9V-STBY
+5V2
7M01-1 BC847BPN
7M01-2 BC847BPN
7M02 BC847BW
7M06 BC847BW
7M09 BC847BW
7M11 BC847BW
7M12 PDTC114EU
6M01-1 BAV99S
6M01-2 BAV99S
2V6
0V5
1M51
1M49 RES
1M20
1M01
1M62
1M03
1M52
1M36
1M46
S4B-PH-SM4-TB(LF)
S2B-PH-SM4-TB
TO 1M49
AL
AMBILIGHT
TO 1M21
J
LED SWITCH PANEL
TO 1M0J
J
LED SWITCH PANEL
N.C.
TO 1M03
SA
AUDIO \ STANDBY
TO 1M03
A
AUDIO \ STANDBY
TO 1M36
D
SIDE I\O
SUPPLY
TO 1M46
SA
AUDIO \ STANDBY
8204 000 8409.6
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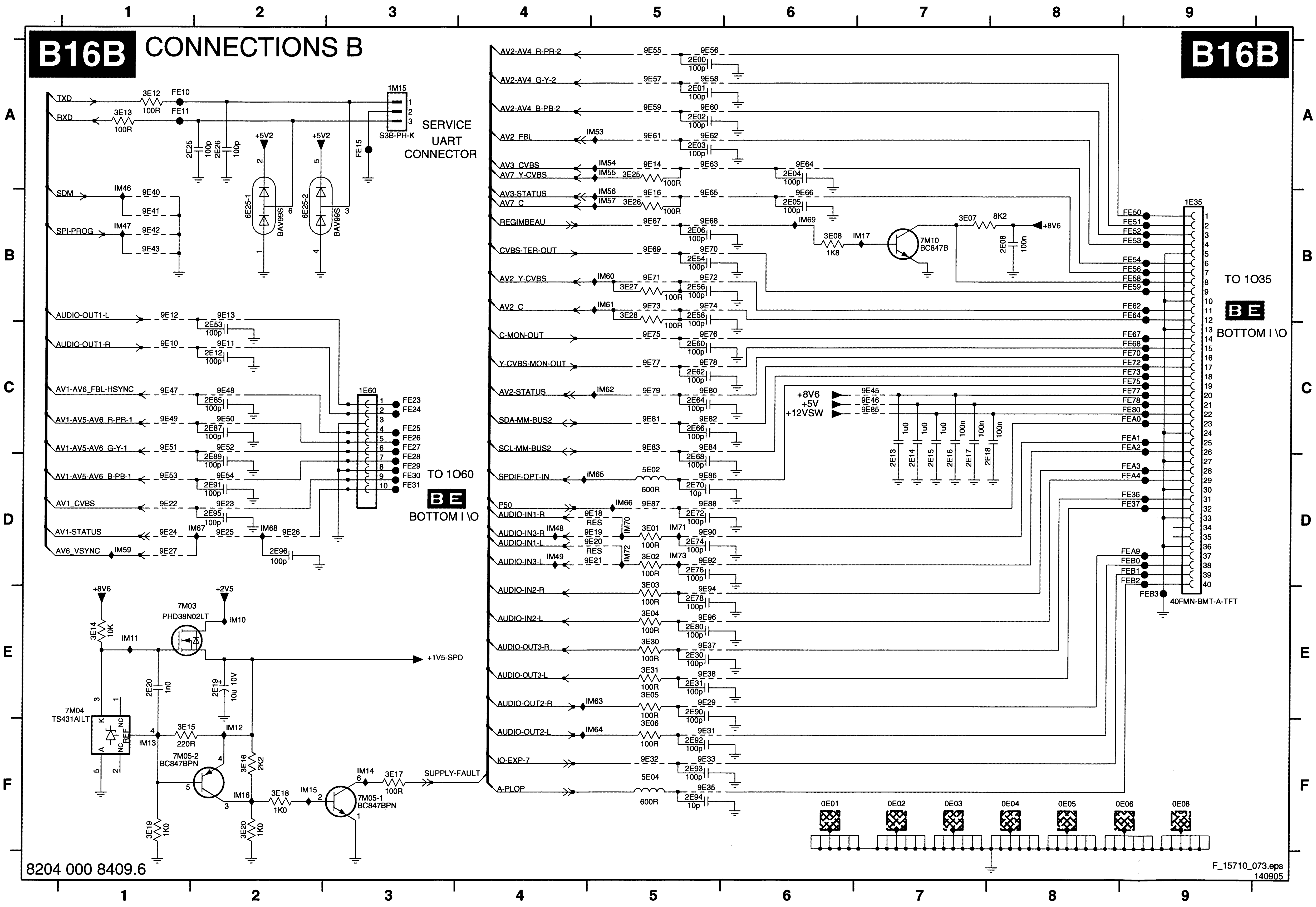
140905
0M19 EMC HOLE
0M20 EMC HOLE
0M21 EMC HOLE

SSB (v2): Connections B


B16B
CONNECTIONS B
B16B
TXD
RXD
3E12 100R
3E13 100R
FE10
FE11
1M15
S3B-PH-K
SERVICE UART CONNECTOR
2E25 100p
2E26 100p
FE15
+5V2
6E25-1 BAV99S
6E25-2 BAV99S
SDM
SPI-PROG
IM46
IM47
9E40
9E41
9E42
9E43
AUDIO-OUT1-L
AUDIO-OUT1-R
AV1-AV6_FBL-HSYNC
AV1-AV5-AV6_R-PR-1
AV1-AV5-AV6_G-Y-1
AV1-AV5-AV6_B-PB-1
AV1_CVBS
AV1-STATUS
AV6_VSYNC
1E60
TO 1O60
BE
BOTTOM I \O
FE23
FE24
FE25
FE26
FE27
FE28
FE29
FE30
FE31
+8V6
+2V5
7M03 PHD38N02LT
IM10
IM11
3E14 10K
7M04 TS431AILT
2E20 1n0
2E19 10u 10V
+1V5-SPD
3E15 220R
IM12
IM13
7M05-2 BC847BPN
3E16 2K2
3E17 100R
IM14
SUPPLY-FAULT
3E18 1K0
IM15
IM16
7M05-1 BC847BPN
3E19 1K0
3E20 1K0
AV2-AV4_R-PR-2
AV2-AV4_G-Y-2
AV2-AV4_B-PB-2
AV2_FBL
AV3_CVBS
AV7_Y-CVBS
AV3-STATUS
AV7_C
REGIMBEAU
CVBS-TER-OUT
AV2_Y-CVBS
AV2_C
C-MON-OUT
Y-CVBS-MON-OUT
AV2-STATUS
SDA-MM-BUS2
SCL-MM-BUS2
SPDIF-OPT-IN
P50
AUDIO-IN1-R
AUDIO-IN3-R
AUDIO-IN1-L
AUDIO-IN3-L
AUDIO-IN2-R
AUDIO-IN2-L
AUDIO-OUT3-R
AUDIO-OUT3-L
AUDIO-OUT2-R
AUDIO-OUT2-L
IO-EXP-7
A-PLOP
5E02 600R
5E04 600R
9E18 RES
9E19 RES
9E20 RES
9E21
3E07 8K2
+8V6
7M10 BC847B
3E08 1K8
IM17
IM69
2E08 100n
+8V6
+5V
+12VSW
9E45
9E46
9E85
2E13 1u0
2E14 1u0
2E15 1u0
2E16 100n
2E17 100n
2E18 100n
1E35
TO 1O35
BE
BOTTOM I \O
40FMN-BMT-A-TFT
FEB3
0E01
0E02
0E03
0E04
0E05
0E06
0E08
8204 000 8409.6
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0E01	F6	7M05-1	F3	FE27	C3
0E02	F7	7M05-2	F1	FE28	D3
0E03	F7	7M10	B7	FE29	D3
0E04	F8	9E10	C1	FE30	D3
0E05	F8	9E11	C2	FE31	D3
0E06	F9	9E12	B1	FE36	D9
0E08	F9	9E13	B2	FE37	D9
1E35	B9	9E14	A5	FE50	B9
1E60	C3	9E16	B5	FE51	B9
1M15	A3	9E18	D5	FE52	B9
2E00	A5	9E19	D5	FE53	B9
2E01	A5	9E20	D5	FE54	B9
2E02	A5	9E21	D5	FE56	B9
2E03	A5	9E22	D1	FE58	B9
2E04	A6	9E23	D2	FE59	B9
2E05	B6	9E24	D1	FE62	B9
2E06	B5	9E25	D2	FE64	B9
2E08	B8	9E26	D2	FE67	C9
2E12	C2	9E27	D1	FE68	C9
2E13	D7	9E29	E5	FE70	C9
2E14	D7	9E31	F5	FE72	C9
2E15	D7	9E32	F5	FE73	C9
2E16	D7	9E33	F5	FE75	C9
2E17	D7	9E35	F5	FE77	C9
2E18	D8	9E37	E5	FE78	C9
2E19	E2	9E38	E5	FE80	C9
2E20	E1	9E40	B1	FEA0	C9
2E25	A1	9E41	B1	FEA1	C9
2E26	A2	9E42	B1	FEA2	C9
2E30	E5	9E43	B1	FEA3	D9
2E31	E5	9E45	C7	FEA4	D9
2E53	C2	9E46	C7	FEA9	D9
2E54	B5	9E47	C1	FEB0	D9
2E56	B5	9E48	C2	FEB1	D9
2E58	B5	9E49	C1	FEB2	D9
2E60	C5	9E50	C2	FEB3	E9
2E62	C5	9E51	C1	IM10	E2
2E64	C5	9E52	C2	IM11	E1
2E66	C5	9E53	D1	IM12	F2
2E68	D5	9E54	D2	IM13	F1
2E70	D5	9E55	A5	IM14	F3
2E72	D5	9E56	A5	IM15	F2
2E74	D5	9E57	A5	IM16	F2
2E76	D5	9E58	A5	IM17	B7
2E78	E5	9E59	A5	IM46	A1
2E80	E5	9E60	A5	IM47	B1
2E85	C2	9E61	A5	IM48	D4
2E87	C2	9E62	A5	IM49	D4
2E89	D2	9E63	A5	IM53	A5
2E90	E5	9E64	A6	IM54	A5
2E91	D2	9E65	B5	IM55	A5
2E92	F5	9E66	B6	IM56	B5
2E93	F5	9E67	B5	IM57	B5
2E94	F5	9E68	B5	IM59	D1
2E95	D2	9E69	B5	IM60	B5
2E96	D2	9E70	B5	IM61	B5
3E01	D5	9E71	B5	IM62	C5
3E02	D5	9E72	B5	IM63	E5
3E03	E5	9E73	B5	IM64	F5
3E04	E5	9E74	B5	IM65	D5
3E05	E5	9E75	C5	IM66	D5
3E06	F5	9E76	C5	IM67	D2
3E07	B7	9E77	C5	IM68	D2
3E08	B6	9E78	C5	IM69	B6
3E12	A1	9E79	C5	IM70	D5
3E13	A1	9E80	C5	IM71	D5
3E14	E1	9E81	C5	IM72	D5
3E15	F1	9E82	C5	IM73	D5
3E16	F2	9E83	C5		
3E17	F3	9E84	C5		
3E18	F2	9E85	C7		
3E19	F1	9E86	D5		
3E20	F2	9E87	D5		
3E25	A5	9E88	D5		
3E26	B5	9E90	D5		
3E27	B5	9E92	D5		
3E28	B5	9E94	E5		
3E30	E5	9E96	E5		
3E31	E5	FE10	A1		
5E02	D5	FE11	A1		
5E04	F5	FE15	A3		
6E25-1	B2	FE23	C3		
6E25-2	B2	FE24	C3		
7M03	E1	FE25	C3		
7M04	E1	FE26	C3		

SSB: Signal Lines Overview (v2) Part 1

Netname	Page
+12V-DC	B01
+12VS	B01
+12VS	B08a
+12VS	B08c
+12VS	B16a
+12VSW	B01
+12VSW	B04b
+12VSW	B04i
+12VSW	B09b
+12VSW	B09c
+12VSW	B14b
+12VSW	B16b
+12VSW-AIO	B14b
+1V2	B01
+1V2	B05e
+1V2	B07d
+1V2	B08a
+1V2-STANDBY	B05e
+1V2-STANDBY	B08a
+1V5	B09a
+1V5M	B09a
+1V5PLL	B09a
+1V5-SPD	B06c
+1V5-SPD	B16b
+2V5	B01
+2V5	B06b
+2V5	B06c
+2V5	B07d
+2V5	B08a
+2V5	B16b
+2V5D	B01
+2V5D	B07b
+2V5D-DDR	B07b
+2V5-DDR	B06b
+2V5-DDR	B06c
+2V5-DDRPNX	B05d
+2V5-DDRPNX	B05f
+2V5M	B09a
+2V5-N	B05c
+2V5-N	B06a
+2V5-S	B05c
+2V5-S	B05f
+2V5-SPDDR	B06b
+2V5-TUN	B05c
+2V5-TUN	B06a
+2V5-TUN	B06c
+2V5-VIPER	B07b
+2V5-VIPER	B07c
+2V5-VIPER	B07d
+2V8	B01
+3V3	B01
+3V3	B05a
+3V3	B05e
+3V3	B06c
+3V3	B07a
+3V3	B07c
+3V3	B07d
+3V3	B07e
+3V3	B08a
+3V3	B08b
+3V3	B09a
+3V3	B09b
+3V3	B09c
+3V3	B11c
+3V3	B13a
+3V3	B14b
+3V3	B15
+3V3	B16a
+3V3-AIO	B14b
+3V3-AIO	B14c
+3V3-AV	B11c
+3V3-ET-ANA	B15
+3V3-ET-DIG	B15
+3V3-HD	B11c
+3V3M	B09a
+3V3M	B09d
+3V3-SD	B09a
+3V3-SD	B09d
+3V3-SPIDER	B06a
+3V3-SPIDER	B06c
+3V3-SPIDER	B06d
+3V3-STANDBY	B05e
+3V3-STANDBY	B08a
+3V3-STANDBY	B14b
+5V	B01
+5V	B07a
+5V	B08a
+5V	B11c
+5V	B14b
+5V	B16a
+5V	B16b
+5V2	B01
+5V2	B05e
+5V2	B08a
+5V2	B08c
+5V2	B14a
+5V2	B16a
+5V2	B16b
+5V2S	B04b
+5V2S	B04f
+5V2S	B04i
+5V2S	B09b
+5V2-STANDBY	B05e
+5V2-STANDBY	B16a
+5V2-STBY_9VSTBY	B16a
+5V-AIO	B14b
+5V-AIO	B14c
+5VaM	B04c
+5VaS	B04g
+5V-AUD	B04b
+5V-AUD	B04i
+5VbM	B04a
+5VbM	B04c
+5VbMAIN	B04a
+5VbS	B04g
+5VDISP	B09b
+5VDISP	B09c
+5VMPIF-MAIN	B04a
+5VMPIF-MAIN	B04b
+5VMPIF-MAIN	B04c
+5VMPIF-SUB	B04e
+5VMPIF-SUB	B04f
+5VMPIF-SUB	B04g
+5VTUN	B02
+5VTUN	B03
+5VTUNMAIN	B02
+5VTUNSUB	B03
+5V-USB	B07e
+5V-USB	B16a
+8V6	B02
+8V6	B04b
+8V6	B04f
+8V6	B08a
+8V6	B08b
+8V6	B11a
+8V6	B12a
+8V6	B14b
+8V6	B16a
+8V6	B16b
+8VaM	B04c
+8VaS	B04g
+8V-AUD	B04b
+8VMPIF-MAIN	B04b
+8VMPIF-MAIN	B04c
+8VMPIF-SUB	B04f
+8VMPIF-SUB	B04g
+9V-STBY	B16a
+VTUN	B01
+VTUN	B02
+VTUN	B16a
+VTUN1	B02
+VTUN2	B02
+VTUN2	B03
1V8-APLL	B11c
1V8-DIG	B11c
1V8-HDMI	B11c
1V8-PLL	B11c
2NDSIFEXTM	B04c
2NDSIFEXTS	B04g
3V3-APLL	B11c
3V3-AVI	B11c
3V3-DIG	B11a
3V3-DIG	B11b
3V3-DIG	B11c
3V3-HDMI	B11b
3V3-HDMI	B11c
3V3-PLL	B11c
A(0)	B06b
A(1)	B06b
A(10)	B06b
A(11)	B06b
A(2)	B06b
A(3)	B06b
A(4)	B06b
A(5)	B06b
A(6)	B06b
A(7)	B06b
A(8)	B06b
A(9)	B06b
A0	B09d
A1	B09d
A10	B09d
A11	B09d
A2	B09d
A3	B09d
A4	B09d
A5	B09d
A6	B09d
A7	B09d
A8	B09d
A9	B09d
ADAC1	B04i
ADAC1	B05a
ADAC2	B04i
ADAC2	B05a
ADAC4	B04i
ADAC4	B05a
ADAC7	B04i
ADAC7	B05a
ADAC8	B04i
ADAC8	B05a
AGC1	B03
AGC1	B04g
AGC2	B02
AGC2	B04c
AIN-5V	B11a
ALE	B05e
ALE	B05g
A-PLOP	B07a
A-PLOP	B08c
A-PLOP	B12a
A-PLOP	B14a
A-PLOP	B16a
A-PLOP	B16b
AP-SCART1-OUT-L	B12a
AP-SCART1-OUT-R	B12a
ARX0-	B11a
ARX0+	B11a
ARX1-	B11a
ARX1+	B11a
ARX2-	B11a
ARX2+	B11a
ARXC-	B11a
ARXC+	B11a
ARX-DDC-SCL	B11a
ARX-DDC-SDA	B11a
ARX-HOTPLUG	B11a
AUDIO-CENTER-IN	B04d
AUDIO-CENTER-IN	B04h
AUDIO-HDPH-L	B04i
AUDIO-HDPH-L	B14a
AUDIO-HDPH-L-AP	B14a
AUDIO-HDPH-L-AP	B16a
AUDIO-HDPH-R	B04i
AUDIO-HDPH-R	B14a
AUDIO-HDPH-R-AP	B14a
AUDIO-HDPH-R-AP	B16a
AUDIO-IN1-L	B04d
AUDIO-IN1-L	B04h
AUDIO-IN1-L	B12a
AUDIO-IN1-L	B16b
AUDIO-IN1-R	B04d
AUDIO-IN1-R	B04h
AUDIO-IN1-R	B12a
AUDIO-IN1-R	B16b
AUDIO-IN2-L	B04d
AUDIO-IN2-L	B04h
AUDIO-IN2-L	B16b
AUDIO-IN2-R	B04d
AUDIO-IN2-R	B04h
AUDIO-IN2-R	B16b
AUDIO-IN3-L	B04d
AUDIO-IN3-L	B04h
AUDIO-IN3-L	B16b
AUDIO-IN3-R	B04d
AUDIO-IN3-R	B04h
AUDIO-IN3-R	B16b
AUDIO-IN4-L	B04d
AUDIO-IN4-L	B04h
AUDIO-IN4-L	B14b
AUDIO-IN4-R	B04d
AUDIO-IN4-R	B04h
AUDIO-IN4-R	B14b
AUDIO-IN5-L	B04d
AUDIO-IN5-L	B04h
AUDIO-IN5-L	B16a
AUDIO-IN5-R	B04d
AUDIO-IN5-R	B04h
AUDIO-IN5-R	B16a
AUDIO-L	B04i
AUDIO-L	B16a
AUDIO-OUT1-L	B04d
AUDIO-OUT1-L	B12a
AUDIO-OUT1-L	B16b
AUDIO-OUT1-R	B04d
AUDIO-OUT1-R	B12a
AUDIO-OUT1-R	B16b
AUDIO-OUT2-L	B04h
AUDIO-OUT2-L	B16b
AUDIO-OUT2-M-L	B04d
AUDIO-OUT2-M-L	B04h
AUDIO-OUT2-M-R	B04d
AUDIO-OUT2-M-R	B04h
AUDIO-OUT2-R	B04h
AUDIO-OUT2-R	B16b
AUDIO-OUT3-L	B04d
AUDIO-OUT3-L	B16b
AUDIO-OUT3-R	B04d
AUDIO-OUT3-R	B16b
AUDIO-R	B04i
AUDIO-R	B16a
AUDIO-SW	B04i
AUDIO-SW	B16a
AV1_CVBS	B04a
AV1_CVBS	B04e
AV1_CVBS	B12a
AV1_CVBS	B16b
AV1-AV5-AV6_B-PB	B04a
AV1-AV5-AV6_B-PB	B04e
AV1-AV5-AV6_B-PB	B11b
AV1-AV5-AV6_B-PB	B12a
AV1-AV5-AV6_B-PB-1	B12a
AV1-AV5-AV6_B-PB-1	B16b
AV1-AV5-AV6_G-Y	B04a
AV1-AV5-AV6_G-Y	B04e
AV1-AV5-AV6_G-Y	B11b
AV1-AV5-AV6_G-Y	B12a
AV1-AV5-AV6_G-Y-1	B12a
AV1-AV5-AV6_G-Y-1	B16b
AV1-AV5-AV6_R-PR	B04a
AV1-AV5-AV6_R-PR	B04e
AV1-AV5-AV6_R-PR	B11b
AV1-AV5-AV6_R-PR	B12a
AV1-AV5-AV6_R-PR-1	B12a
AV1-AV5-AV6_R-PR-1	B16b
AV1-AV6_FBL-HSYNC	B05a
AV1-AV6_FBL-HSYNC	B11b
AV1-AV6_FBL-HSYNC	B12a
AV1-AV6_FBL-HSYNC	B16b
AV1-STATUS	B05e
AV1-STATUS	B12a
AV1-STATUS	B16b
AV2_C	B04a
AV2_C	B04e
AV2_C	B16b
AV2_FBL	B05a
AV2_FBL	B16b
AV2_Y-CVBS	B04a
AV2_Y-CVBS	B04e
AV2_Y-CVBS	B16b
AV2-AV4_B-PB	B04a
AV2-AV4_B-PB	B04e
AV2-AV4_B-PB	B11b
AV2-AV4_B-PB	B12a
AV2-AV4_B-PB-2	B12a
AV2-AV4_B-PB-2	B16b
AV2-AV4_G-Y	B04a
AV2-AV4_G-Y	B04e
AV2-AV4_G-Y	B11b
AV2-AV4_G-Y	B12a
AV2-AV4_G-Y-2	B12a
AV2-AV4_G-Y-2	B16b
AV2-AV4_R-PR	B04a
AV2-AV4_R-PR	B04e
AV2-AV4_R-PR	B11b
AV2-AV4_R-PR	B12a
AV2-AV4_R-PR-2	B12a
AV2-AV4_R-PR-2	B16b
AV2-STATUS	B05e
AV2-STATUS	B16b
AV3_CVBS	B04a
AV3_CVBS	B04e
AV3_CVBS	B16b
AV3-STATUS	B05e
AV3-STATUS	B16b
AV6_VSYNC	B05a
AV6_VSYNC	B11b
AV6_VSYNC	B16b
AV7_C	B04a
AV7_C	B04e
AV7_C	B16b
AV7_Y-CVBS	B04a
AV7_Y-CVBS	B04e
AV7_Y-CVBS	B16b
B0e	B09d
B0o	B09d
B1e	B09d
B1o	B09d
B2e	B09d
B2o	B09d
B3e	B09d
B3o	B09d
B4e	B09d
B4o	B09d
B5e	B09d
B5o	B09d
B6e	B09d
B6o	B09d
B7e	B09d
B7o	B09d
BA0	B06b
BA1	B06b
BACKLIGHT-CONTROL	B05e
BACKLIGHT-CONTROL	B07c
BACKLIGHT-CONTROL	B16a
BIN-5V	B11a
BRX0-	B11a
BRX0+	B11a
BRX1-	B11a
BRX1+	B11a
BRX2-	B11a
BRX2+	B11a
BRXC-	B11a
BRXC+	B11a
BRX-DDC-SCL	B11a
BRX-DDC-SDA	B11a
BRX-HOTPLUG	B11a
CAS	B06b
CAS	B09d
CK	B06b
CKE	B06b
CKN	B06b
Clk	B09d
CLK-MPIF	B04b
CLK-MPIF	B04f
CLK-MPIF	B05a
CLK-OUT	B09d
C-MON-OUT	B07c
C-MON-OUT	B16b
COM-SND	B05g
COM-SND	B16a
CS	B06b
CTRL1-MOP	B09c
CTRL1-MOP	B09d
CTRL1-STBY	B05e
CTRL1-STBY	B09c
CTRL1-VIPER	B07c
CTRL1-VIPER	B09b
CTRL1-VIPER	B09c
CTRL2-MOP	B09c
CTRL2-MOP	B09d
CTRL2-VIPER	B07c
CTRL2-VIPER	B09c
CTRL3-STBY	B05e
CTRL4-MOP	B09c
CTRL4-MOP	B09d
CTRL4-STBY	B05e
CTRL4-VIPER	B07a
CTRL4-VIPER	B09c
CTRL4-VIPER	B09d
CTRL-DISP1	B09c
CTRL-DISP2	B09c
CVBSOUTIF-MAIN	B04a
CVBSOUTIF-MAIN	B04c
CVBSOUTIF-MAIN	B04e
CVBSOUTIF-SUB	B04a
CVBSOUTIF-SUB	B04e
CVBSOUTIF-SUB	B04g
CVBS-OUT-TER-MAIN	B04a
CVBS-OUT-TER-MAIN	B04c
CVBS-TER-OUT	B04a
CVBS-TER-OUT	B12a
CVBS-TER-OUT	B16b
D1	B09d
D10	B09d
D11	B09d
D12	B09d
D13	B09d
D14	B09d
D15	B09d
D16	B09d
D2	B09d
D3	B09d
D4	B09d
D5	B09d
D6	B09d
D7	B09d
D8	B09d
D9	B09d
DAC-CVBS	B07c
DAC-CVBS	B08b
DATA1N-MAIN	B04a
DATA1N-MAIN	B05a
DATA1N-SUB	B04e
DATA1N-SUB	B05a
DATA1P-MAIN	B04a
DATA1P-MAIN	B05a
DATA1P-SUB	B04e
DATA1P-SUB	B05a
DATA2N-MAIN	B04a
DATA2N-MAIN	B05a
DATA2N-SUB	B04e
DATA2N-SUB	B05a
DATA2P-MAIN	B04a
DATA2P-MAIN	B05a
DATA2P-SUB	B04e
DATA2P-SUB	B05a
DATA3N-MAIN	B04a
DATA3N-MAIN	B05a
DATA3N-SUB	B04e
DATA3N-SUB	B05a
DATA3P-MAIN	B04a
DATA3P-MAIN	B05a
DATA3P-SUB	B04e
DATA3P-SUB	B05a
DE	B09d
DEBUG-BREAK	B05e
DEBUG-BREAK	B07a
DETECT-12VSW	B05g
DETECT-12VSW	B08a
DETECT-1V2	B05g
DETECT-1V2	B08a
DETECT-2V5	B05g
DETECT-2V5	B08a
DETECT-3V3	B05g
DETECT-3V3	B08a
DETECT-5V	B05g
DETECT-5V	B08a
DETECT-8V6	B05g
DETECT-8V6	B08a
DQ(0)	B06b
DQ(1)	B06b
DQ(10)	B06b
DQ(11)	B06b
DQ(12)	B06b
DQ(13)	B06b
DQ(14)	B06b
DQ(15)	B06b
DQ(2)	B06b
DQ(3)	B06b
DQ(4)	B06b
DQ(5)	B06b
DQ(6)	B06b
DQ(7)	B06b
DQ(8)	B06b
DQ(9)	B06b
DQM	B09d
DSNDL1	B04d
DSNDL1	B05a
DSNDL2	B04d
DSNDL2	B05a
DSNDR1	B04d
DSNDR1	B05a
DSNDR2	B04d
DSNDR2	B05a
DV1F-CLK	B05b
DV1F-CLK	B07c
DV1F-DATA0_SOP	B05b
DV1F-DATA0_SOP	B07c
DV1F-DATA1_ERR	B05b
DV1F-DATA1_ERR	B07c
DV1F-DATA2_0	B05b
DV1F-DATA2_0	B07c
DV1F-DATA3_1	B05b
DV1F-DATA3_1	B07c
DV1F-DATA4_2	B05b
DV1F-DATA4_2	B07c
DV1F-DATA5_3	B05b
DV1F-DATA5_3	B07c
DV1F-DATA6_4	B05b
DV1F-DATA6_4	B07c
DV1F-DATA7_5	B05b
DV1F-DATA7_5	B07c
DV1F-DATA8_6	B05b
DV1F-DATA8_6	B07c
DV1F-DATA9_7	B05b
DV1F-DATA9_7	B07c
DV1F-VALID	B05b
DV1F-VALID	B07c
DV2A-CLK	B05b
DV2A-CLK	B07c
DV2A-DATA0_SOP	B05b
DV2A-DATA0_SOP	B07c
DV2A-DATA1_ERR	B05b
DV2A-DATA1_ERR	B07c
DV2A-DATA2_0	B05b
DV2A-DATA2_0	B07c
DV2A-DATA3_1	B05b
DV2A-DATA3_1	B07c
DV2A-DATA4_2	B05b
DV2A-DATA4_2	B07c
DV2A-DATA5_3	B05b
DV2A-DATA5_3	B07c
DV2A-DATA6_4	B05b
DV2A-DATA6_4	B07c
DV2A-DATA7_5	B05b
DV2A-DATA7_5	B07c
DV2A-DATA8_6	B05b
DV2A-DATA8_6	B07c
DV2A-DATA9_7	B05b
DV2A-DATA9_7	B07c
DV2A-VALID	B05b
DV2A-VALID	B07c
DV3F-CLK	B05b
DV3F-CLK	B07c
DV3F-DATA0_SOP	B05b
DV3F-DATA0_SOP	B07c
DV3F-DATA1_ERR	B05b
DV3F-DATA1_ERR	B07c
DV3F-DATA2_0	B05b
DV3F-DATA2_0	B07c
DV3F-DATA3_1	B05b
DV3F-DATA3_1	B07c
DV3F-DATA4_2	B05b
DV3F-DATA4_2	B07c
DV3F-DATA5_3	B05b
DV3F-DATA5_3	B07c
DV3F-DATA6_4	B05b
DV3F-DATA6_4	B07c
DV3F-DATA7_5	B05b
DV3F-DATA7_5	B07c
DV3F-DATA8_6	B05b
DV3F-DATA8_6	B07c
DV3F-DATA9_7	B05b
DV3F-DATA9_7	B07c
DV3F-VALID	B05b
DV3F-VALID	B07c
DV4-CLK	B05b
DV4-CLK	B11b
DV4-DATA0_SOP	B05b
DV4-DATA0_SOP	B11b
DV4-DATA1_ERR	B05b
DV4-DATA1_ERR	B11b
DV4-DATA2_0	B05b
DV4-DATA2_0	B11b
DV4-DATA3_1	B05b
DV4-DATA3_1	B11b
DV4-DATA4_2	B05b
DV4-DATA4_2	B11b
DV4-DATA5_3	B05b
DV4-DATA5_3	B11b
DV4-DATA6_4	B05b
DV4-DATA6_4	B11b
DV4-DATA7_5	B05b
DV4-DATA7_5	B11b
DV4-DATA8_6	B05b
DV4-DATA8_6	B11b
DV4-DATA9_7	B05b
DV4-DATA9_7	B11b
DV4-VALID	B05b
DV4-VALID	B11b
DV5-DATA0_SOP	B05b
DV5-DATA0_SOP	B11b
DV5-DATA1_ERR	B05b
DV5-DATA1_ERR	B11b
DV5-DATA2_0	B05b
DV5-DATA2_0	B11b
DV5-DATA3_1	B05b
DV5-DATA3_1	B11b
DV5-DATA4_2	B05b
DV5-DATA4_2	B11b
DV5-DATA5_3	B05b
DV5-DATA5_3	B11b
DV5-DATA6_4	B05b
DV5-DATA6_4	B11b
DV5-DATA7_5	B05b
DV5-DATA7_5	B11b
DV5-DATA8_6	B05b
DV5-DATA8_6	B11b
DV5-DATA9_7	B05b
DV5-DATA9_7	B11b
DV-BOUT-0	B07c
DV-BOUT-0	B09d
DV-BOUT-1	B07c
DV-BOUT-1	B09d
DV-BOUT-2	B07c
DV-BOUT-2	B09d
DV-BOUT-3	B07c
DV-BOUT-3	B09d
DV-BOUT-4	B07c
DV-BOUT-4	B09d
DV-BOUT-5	B07c
DV-BOUT-5	B09d
DV-BOUT-6	B07c
DV-BOUT-6	B09d
DV-BOUT-7	B07c
DV-BOUT-7	B09d
DV-BOUT-8	B07c
DV-BOUT-8	B09d
DV-BOUT-9	B07c
DV-BOUT-9	B09d
DV-CLKIN	B07c
DV-CLKIN	B09a
DV-FREF	B05b
DV-FREF	B11b
DV-GOUT-0	B07c
DV-GOUT-0	B09d
DV-GOUT-1	B07c
DV-GOUT-1	B09d
DV-GOUT-2	B07c
DV-GOUT-2	B09d
DV-GOUT-3	B07c
DV-GOUT-3	B09d
DV-GOUT-4	B07c
DV-GOUT-4	B09d
DV-GOUT-5	B07c
DV-GOUT-5	B09d
DV-GOUT-6	B07c
DV-GOUT-6	B09d
DV-GOUT-7	B07c
DV-GOUT-7	B09d
DV-GOUT-8	B07c
DV-GOUT-8	B09d
DV-GOUT-9	B07c
DV-GOUT-9	B09d
DV-HREF	B05b
DV-HREF	B11b
DVI-B-Pb	B11a
DVI-B-Pb	B11b
DVI-B-Pb3	B11a
DVI-G-Y	B11a
DVI-G-Y	B11b
DVI-G-Y3	B11a
DVI-HSYNC	B11a
DVI-HSYNC	B11b
DVI-HSYNC3	B11a
DVI-R-Pr	B11a
DVI-R-Pr	B11b
DVI-R-Pr3	B11a
DVI-VSYNC	B11a
DVI-VSYNC	B11b
DVI-VSYNC3	B11a
DV-OUT-DE	B07c
DV-OUT-DE	B09d
DV-OUT-FFIELD	B07c
DV-OUT-FFIELD	B09d
DV-OUT-HS	B07c
DV-OUT-HS	B09d
DV-OUT-VS	B07c
DV-OUT-VS	B09b
DV-OUT-VS	B09d
DV-ROUT-0	B07c
DV-ROUT-0	B09d
DV-ROUT-1	B07c
DV-ROUT-1	B09d
DV-ROUT-2	B07c
DV-ROUT-2	B09d
DV-ROUT-3	B07c
DV-ROUT-3	B09d
DV-ROUT-4	B07c
DV-ROUT-4	B09d
DV-ROUT-5	B07c
DV-ROUT-5	B09d
DV-ROUT-6	B07c
DV-ROUT-6	B09d
DV-ROUT-7	B07c
DV-ROUT-7	B09d
DV-ROUT-8	B07c
DV-ROUT-8	B09d
DV-ROUT-9	B07c
DV-ROUT-9	B09d
DV-VREF	B05b
DV-VREF	B11b
EA	B05e
EA	B05g
EJTAG-DETECT	B05e
EJTAG-DETECT	B07e
EJTAG-TCK	B07a
EJTAG-TCK	B07e
EJTAG-TDI	B07a
EJTAG-TDI	B07e
EJTAG-TDO	B07a
EJTAG-TDO	B07e
EJTAG-TMS	B07a
EJTAG-TMS	B07e
ENABLE-1V2	B01
ENABLE-1V2	B05g
ENABLE-2V5	B01
ENABLE-2V5	B05g
ENABLE-3V3	B01
ENABLE-3V3	B05g
ENABLE5V	B09b
ENABLE5V	B09c
FFe	B09d
FFo	B09d
FRONT_C	B04a
FRONT_C	B04e
FRONT_C	B16a
FRONT_Y-CVBS	B04a
FRONT_Y-CVBS	B04e
FRONT_Y-CVBS	B16a
FRONT-DETECT	B05e
FRONT-DETECT	B16a
G0e	B09d
G0o	B09d
G1e	B09d
G1o	B09d
G2e	B09d
G2o	B09d
G3e	B09d
G3o	B09d
G4e	B09d
G4o	B09d
G5e	B09d
G5o	B09d
G6e	B09d
G6o	B09d
G7e	B09d
G7o	B09d
GLINK-IR-OUT	B07a
GLINK-RXD	B07a
GLINK-RXD	B14b
GLINK-TXD	B07a
GLINK-TXD	B14b
HDMI-COAST	B07a
HDMI-COAST	B11b
HPD-HIRATE	B07a
HPD-HIRATE	B11a
HPD-HIRATE	B11b
HSe	B09d
HSo	B09d
HV-PRM-MAIN	B04a
HV-PRM-MAIN	B05a
HV-PRM-SUB	B04e
HV-PRM-SUB	B05a
I2S-BCLK-AVIP	B05a
I2S-BCLK-AVIP	B07c
I2S-BCLK-MAIN	B05a
I2S-BCLK-MAIN	B07c
I2S-BCLK-SUB	B05a
I2S-BCLK-SUB	B07c
I2S-MAIN-D	B05a
I2S-MAIN-D	B07c
I2S-MAIN-ND	B05a
I2S-MAIN-ND	B07c
I2S-MCH-CSW	B05a
I2S-MCH-CSW	B07c
I2S-MCH-LR	B05a
I2S-MCH-LR	B07c
I2S-MCH-SLR	B05a
I2S-MCH-SLR	B07c
I2S-SUB-D	B05a
I2S-SUB-D	B07c
I2S-SUB-ND	B05a
I2S-SUB-ND	B07c
I2S-WS-AVIP	B05a
I2S-WS-AVIP	B07c
I2S-WS-MAIN	B05a
I2S-WS-MAIN	B07c
I2S-WS-SUB	B05a
I2S-WS-SUB	B07c
IF-TER1	B03
IF-TER1	B04g
IF-TER2	B02
IF-TER2	B04c
IO-EXP-1	B05e
IO-EXP-1	B14b
IO-EXP-1	B14c
IO-EXP-2	B05e
IO-EXP-2	B14b
IO-EXP-2	B14c
IO-EXP-7	B16b
IRQ-AVIP	B05e
IRQ-AVIP	B07a
IRQ-AVIP-SUB	B05e
IRQ-AVIP-SUB	B07a
IRQ-ETHERNET	B07a
IRQ-ETHERNET	B15
IRQ-FE-MAIN	B07a
IRQ-FE-SUB	B07a
IRQ-HD1	B05e
IRQ-HD1	B07a
IRQ-HD2	B05e
IRQ-HD2	B07a
IRQ-HIRATE	B05e
IRQ-HIRATE	B07a
IRQ-HIRATE	B11b
IRQ-IEEE1394	B07a
IRQ-MAIN	B07a
IRQ-MPIF	B04b
IRQ-MPIF	B07a
IRQ-MPIF-SUB	B04f
IRQ-MPIF-SUB	B07a
IRQ-POD	B05e
IRQ-POD	B07a
IRQ-SPIDER	B06a
IRQ-SPIDER	B07a
IRQ-SUB	B07a
IRQ-USB20	B07a
IRQ-USB20	B13a
JTAG-TCK	B05e
JTAG-TCK	B06a
JTAG-TCK	B07a
JTAG-TCK	B07e
JTAG-TCK	B11b
JTAG-TD-CON-VIPER	B07a
JTAG-TD-CON-VIPER	B07e
JTAG-TD-HDMI-PNX2015	B05e
JTAG-TD-HDMI-PNX2015	B11b
JTAG-TD-MOP-SPIDER	B06a
JTAG-TD-MOP-SPIDER	B09c
JTAG-TD-PNX2015-POD	B05e
JTAG-TD-PNX2015-POD	B12a
JTAG-TD-POD-CON	B07e
JTAG-TD-POD-CON	B12a
JTAG-TD-SPIDER-HDMI	B06a
JTAG-TD-SPIDER-HDMI	B11b
JTAG-TD-VIPER-MOP	B07a
JTAG-TD-VIPER-MOP	B09c
JTAG-TMS	B05e
JTAG-TMS	B06a
JTAG-TMS	B07a
JTAG-TMS	B07e
JTAG-TMS	B11b
JTAG-TRST	B05e
JTAG-TRST	B06a
JTAG-TRST	B07a
JTAG-TRST	B07e
JTAG-TRST	B11b
KEYBOARD	B05e
KEYBOARD	B16a
LAMP-ON	B05g
LAMP-ON	B16a
LDQS	B06b
LED1	B05e
LED1	B16a
LED1-3V3	B05e
LED2	B05e
LED2	B16a
LED2-3V3	B05e
LIGHT-SENSOR	B05e
LIGHT-SENSOR	B16a
LVDS-3V3	B05f
LVDS-PLL-3V3	B05f
M135-CLK	B07a
M135-CLK	B11b
M27-CLK	B05a
M27-CLK	B07a
M27-HDMI	B05a
M27-HDMI	B11b
M27-MOP	B05a
M27-MOP	B09d
M27-PNX	B05a
M27-PNX	B05e
MM_A0	B07b
MM_A1	B07b
MM_A10	B07b
MM_A11	B07b
MM_A12	B07b
MM_A2	B07b
MM_A3	B07b
MM_A4	B07b
MM_A5	B07b
MM_A6	B07b
MM_A7	B07b
MM_A8	B07b
MM_A9	B07b
MM_BA0	B07b
MM_BA1	B07b
MM_CAS	B07b
MM_CKE	B07b
MM_CLK_N	B07b
MM_CLK_P	B07b
MM_CS0	B07b
MM_DATA_0	B07b
MM_DATA_1	B07b
MM_DATA_10	B07b
MM_DATA_11	B07b
MM_DATA_12	B07b
MM_DATA_13	B07b
MM_DATA_14	B07b
MM_DATA_15	B07b
MM_DATA_16	B07b
MM_DATA_17	B07b
MM_DATA_18	B07b
MM_DATA_19	B07b
MM_DATA_2	B07b
MM_DATA_20	B07b
MM_DATA_21	B07b
MM_DATA_22	B07b
MM_DATA_23	B07b
MM_DATA_24	B07b
MM_DATA_25	B07b
MM_DATA_26	B07b
MM_DATA_27	B07b
MM_DATA_28	B07b
MM_DATA_29	B07b
MM_DATA_3	B07b
MM_DATA_30	B07b
MM_DATA_31	B07b
MM_DATA_4	B07b
MM_DATA_5	B07b
MM_DATA_6	B07b
MM_DATA_7	B07b
MM_DATA_8	B07b
MM_DATA_9	B07b
MM_DQM_0	B07b
MM_DQM_1	B07b
MM_DQM_2	B07b
MM_DQM_3	B07b
MM_DQS0	B07b
MM_DQS1	B07b
MM_DQS2	B07b
MM_DQS3	B07b
MM_RAS	B07b
MM_WE	B07b
MP-BOUT-0	B05b
MP-BOUT-1	B05b
MP-BOUT-2	B05b
MP-BOUT-3	B05b
MP-BOUT-4	B05b
MP-BOUT-5	B05b
MP-BOUT-6	B05b
MP-BOUT-7	B05b
MP-BOUT-8	B05b
MP-BOUT-9	B05b
MP-CLKOUT	B05b
MP-GOUT-0	B05b
MP-GOUT-1	B05b
MP-GOUT-2	B05b
MP-GOUT-3	B05b
MP-GOUT-4	B05b
MP-GOUT-5	B05b
MP-GOUT-6	B05b
MP-GOUT-7	B05b
MP-GOUT-8	B05b
MP-GOUT-9	B05b
MP-OUT-DE	B05b
MP-OUT-FFIELD	B05b
MP-OUT-HS	B05b
MP-OUT-VS	B05b
MP-ROUT-0	B05b

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SSB: Signal Lines Overview (v2) Part 2

NAND-AD(0)	B08b
NAND-AD(1)	B08b
NAND-AD(10)	B08b
NAND-AD(11)	B08b
NAND-AD(12)	B08b
NAND-AD(13)	B08b
NAND-AD(14)	B08b
NAND-AD(15)	B08b
NAND-AD(2)	B08b
NAND-AD(3)	B08b
NAND-AD(4)	B08b
NAND-AD(5)	B08b
NAND-AD(6)	B08b
NAND-AD(7)	B08b
NAND-AD(8)	B08b
NAND-AD(9)	B08b
NAND-ALE	B08b
NAND-CLE	B08b
NAND-REN	B08b
NAND-WEN	B08b
ON-MODE	B05e
ON-MODE	B05g
P0.0	B05e
P0.0	B05g
P0.1	B05e
P0.1	B05g
P0.2	B05e
P0.2	B05g
P0.3	B05e
P0.3	B05g
P0.4	B05e
P0.4	B05g
P0.5	B05e
P0.5	B05g
P0.6	B05e
P0.6	B05g
P0.7	B05e
P0.7	B05g
P2.0	B05e
P2.0	B05g
P2.1	B05e
P2.1	B05g
P2.2	B05e
P2.2	B05g
P2.3	B05e
P2.3	B05g
P2.4	B05e
P2.4	B05g
P2.5	B05e
P2.5	B05g
P2.6	B05g
P2.6-TEST	B05g
P2.7	B05e
P2.7	B05g
P50	B05e
P50	B16b
P50-3V3	B05e
P50-HDMI	B05e
P50-HDMI	B11a
PARX0-	B11a
PARX0-	B11b
PARX0+	B11a
PARX0+	B11b
PARX1-	B11a
PARX1-	B11b
PARX1+	B11a
PARX1+	B11b
PARX2-	B11a
PARX2-	B11b
PARX2+	B11a
PARX2+	B11b
PARXC-	B11a
PARXC-	B11b
PARXC+	B11a
PARXC+	B11b
PARX-DDC-SCL	B11a
PARX-DDC-SCL	B11b
PARX-DDC-SDA	B11a
PARX-DDC-SDA	B11b
PB	B11b
PB	B14b
PBRX0-	B11a
PBRX0-	B11b
PBRX0+	B11a
PBRX0+	B11b
PBRX1-	B11a
PBRX1-	B11b
PBRX1+	B11a
PBRX1+	B11b
PBRX2-	B11a
PBRX2-	B11b
PBRX2+	B11a
PBRX2+	B11b
PBRXC-	B11a
PBRXC-	B11b
PBRXC+	B11a
PBRXC+	B11b
PBRX-DDC-SCL	B11a
PBRX-DDC-SCL	B11b
PBRX-DDC-SDA	B11a
PBRX-DDC-SDA	B11b
PCI-AD0	B07a
PCI-AD0	B08b
PCI-AD0	B12b
PCI-AD0	B13a
PCI-AD0	B13b
PCI-AD0	B15
PCI-AD1	B07a
PCI-AD1	B08b
PCI-AD1	B12b
PCI-AD1	B13a
PCI-AD1	B13b
PCI-AD1	B15
PCI-AD10	B07a
PCI-AD10	B12b
PCI-AD10	B13a
PCI-AD10	B13b
PCI-AD10	B15
PCI-AD11	B07a
PCI-AD11	B12b
PCI-AD11	B13a
PCI-AD11	B13b
PCI-AD11	B15
PCI-AD12	B07a
PCI-AD12	B12b
PCI-AD12	B13a
PCI-AD12	B13b
PCI-AD12	B15
PCI-AD13	B07a
PCI-AD13	B12b
PCI-AD13	B13a
PCI-AD13	B13b
PCI-AD13	B15
PCI-AD14	B07a
PCI-AD14	B12b
PCI-AD14	B13a
PCI-AD14	B13b
PCI-AD14	B15
PCI-AD15	B07a
PCI-AD15	B12b
PCI-AD15	B13a
PCI-AD15	B13b
PCI-AD15	B15
PCI-AD16	B07a
PCI-AD16	B08b
PCI-AD16	B12b
PCI-AD16	B13a
PCI-AD16	B13b
PCI-AD16	B15
PCI-AD17	B07a
PCI-AD17	B08b
PCI-AD17	B12b
PCI-AD17	B13a
PCI-AD17	B13b
PCI-AD17	B15
PCI-AD18	B07a
PCI-AD18	B08b
PCI-AD18	B12b
PCI-AD18	B13a
PCI-AD18	B13b
PCI-AD18	B15
PCI-AD19	B07a
PCI-AD19	B08b
PCI-AD19	B12b
PCI-AD19	B13a
PCI-AD19	B13b
PCI-AD19	B15
PCI-AD2	B07a
PCI-AD2	B12b
PCI-AD2	B13a
PCI-AD2	B13b
PCI-AD2	B15
PCI-AD20	B07a
PCI-AD20	B08b
PCI-AD20	B12b
PCI-AD20	B13a
PCI-AD20	B13b
PCI-AD20	B15
PCI-AD21	B07a
PCI-AD21	B08b
PCI-AD21	B12b
PCI-AD21	B13a
PCI-AD21	B13b
PCI-AD21	B15
PCI-AD22	B07a
PCI-AD22	B08b
PCI-AD22	B12b
PCI-AD22	B13a
PCI-AD22	B13b
PCI-AD22	B15
PCI-AD23	B07a
PCI-AD23	B08b
PCI-AD23	B12b
PCI-AD23	B13a
PCI-AD23	B13b
PCI-AD23	B15
PCI-AD24	B07a
PCI-AD24	B08b
PCI-AD24	B12b
PCI-AD24	B13a
PCI-AD24	B13b
PCI-AD24	B15
PCI-AD25	B07a
PCI-AD25	B08b
PCI-AD25	B12b
PCI-AD25	B13a
PCI-AD25	B13b
PCI-AD25	B15
PCI-AD26	B07a
PCI-AD26	B08b
PCI-AD26	B12b
PCI-AD26	B13a
PCI-AD26	B13b
PCI-AD26	B15
PCI-AD27	B07a
PCI-AD27	B08b
PCI-AD27	B12b
PCI-AD27	B13a
PCI-AD27	B13b
PCI-AD27	B15
PCI-AD28	B07a
PCI-AD28	B08b
PCI-AD28	B12b
PCI-AD28	B13a
PCI-AD28	B13b
PCI-AD28	B15
PCI-AD29	B07a
PCI-AD29	B08b
PCI-AD29	B12b
PCI-AD29	B13a
PCI-AD29	B13b
PCI-AD29	B15
PCI-AD3	B07a
PCI-AD3	B12b
PCI-AD3	B13a
PCI-AD3	B13b
PCI-AD3	B15
PCI-AD30	B07a
PCI-AD30	B08b
PCI-AD30	B12b
PCI-AD30	B13a
PCI-AD30	B13b
PCI-AD30	B15
PCI-AD31	B07a
PCI-AD31	B08b
PCI-AD31	B12b
PCI-AD31	B13a
PCI-AD31	B13b
PCI-AD31	B15
PCI-AD4	B07a
PCI-AD4	B12b
PCI-AD4	B13a
PCI-AD4	B13b
PCI-AD4	B15
PCI-AD5	B07a
PCI-AD5	B12b
PCI-AD5	B13a
PCI-AD5	B13b
PCI-AD5	B15
PCI-AD6	B07a
PCI-AD6	B12b
PCI-AD6	B13a
PCI-AD6	B13b
PCI-AD6	B15
PCI-AD7	B07a
PCI-AD7	B12b
PCI-AD7	B13a
PCI-AD7	B13b
PCI-AD7	B15
PCI-AD8	B07a
PCI-AD8	B12b
PCI-AD8	B13a
PCI-AD8	B13b
PCI-AD8	B15
PCI-AD9	B07a
PCI-AD9	B12b
PCI-AD9	B13a
PCI-AD9	B13b
PCI-AD9	B15
PCI-CBE0	B07a
PCI-CBE0	B12b
PCI-CBE0	B13a
PCI-CBE0	B13b
PCI-CBE0	B15
PCI-CBE1	B07a
PCI-CBE1	B08b
PCI-CBE1	B12b
PCI-CBE1	B13a
PCI-CBE1	B13b
PCI-CBE1	B15
PCI-CBE2	B07a
PCI-CBE2	B08b
PCI-CBE2	B12b
PCI-CBE2	B13a
PCI-CBE2	B13b
PCI-CBE2	B15
PCI-CBE3	B07a
PCI-CBE3	B12b
PCI-CBE3	B13a
PCI-CBE3	B13b
PCI-CBE3	B15
PCI-CLK-ETHERNET	B08b
PCI-CLK-ETHERNET	B15
PCI-CLK-SLOT	B08b
PCI-CLK-SLOT	B12b
PCI-CLK-SLOT	B13b
PCI-CLK-SPIDER	B06a
PCI-CLK-SPIDER	B08b
PCI-CLK-USB20	B08b
PCI-CLK-USB20	B13a
PCI-CLK-VPR	B07a
PCI-CLK-VPR	B08b
PCI-DEVSEL	B07a
PCI-DEVSEL	B12b
PCI-DEVSEL	B13a
PCI-DEVSEL	B13b
PCI-DEVSEL	B15
PCI-FRAME	B07a
PCI-FRAME	B12b
PCI-FRAME	B13a
PCI-FRAME	B13b
PCI-FRAME	B15
PCI-GNT	B07a
PCI-GNT	B12b
PCI-GNT	B13a
PCI-GNT	B13b
PCI-GNT-A	B07a
PCI-GNT-A	B12b
PCI-GNT-A	B13b
PCI-GNT-A	B15
PCI-GNT-B	B12b
PCI-GNT-C	B12b
PCI-GNT-C	B13a
PCI-GNT-C	B13b
PCI-INT-1	B12b
PCI-INT-2	B12b
PCI-INTA	B07a
PCI-INTA	B12b
PCI-IRDY	B07a
PCI-IRDY	B12b
PCI-IRDY	B13a
PCI-IRDY	B13b
PCI-IRDY	B15
PCI-PAR	B07a
PCI-PAR	B12b
PCI-PAR	B13a
PCI-PAR	B13b
PCI-PAR	B15
PCI-PERR	B07a
PCI-PERR	B12b
PCI-PERR	B13a
PCI-PERR	B13b
PCI-PERR	B15
PCI-REQ	B07a
PCI-REQ	B12b
PCI-REQ	B13a
PCI-REQ	B13b
PCI-REQ-A	B07a
PCI-REQ-A	B12b
PCI-REQ-A	B13b
PCI-REQ-A	B15
PCI-REQ-B	B07a
PCI-REQ-B	B12b
PCI-REQ-C	B12b
PCI-REQ-C	B13a
PCI-REQ-C	B13b
PCI-SERR	B07a
PCI-SERR	B12b
PCI-SERR	B13a
PCI-SERR	B13b
PCI-SERR	B15
PCI-STOP	B07a
PCI-STOP	B12b
PCI-STOP	B13a
PCI-STOP	B13b
PCI-STOP	B15
PCI-TRDY	B07a
PCI-TRDY	B12b
PCI-TRDY	B13a
PCI-TRDY	B13b
PCI-TRDY	B15
PLL-1V2	B05f
PLL-3V3	B05f
PLL-OUT	B07a
PLL-OUT	B08b
PNX-MA-0	B05d
PNX-MA-1	B05d
PNX-MA-10	B05d
PNX-MA-11	B05d
PNX-MA-12	B05d
PNX-MA-2	B05d
PNX-MA-3	B05d
PNX-MA-4	B05d
PNX-MA-5	B05d
PNX-MA-6	B05d
PNX-MA-7	B05d
PNX-MA-8	B05d
PNX-MA-9	B05d
PNX-MBA0	B05d
PNX-MBA1	B05d
PNX-MCAS	B05d
PNX-MCKE	B05d
PNX-MCLK-N	B05d
PNX-MCLK-P	B05d
PNX-MCS-0	B05d
PNX-MDATA-0	B05d
PNX-MDATA-1	B05d
PNX-MDATA-10	B05d
PNX-MDATA-11	B05d
PNX-MDATA-12	B05d
PNX-MDATA-13	B05d
PNX-MDATA-14	B05d
PNX-MDATA-15	B05d
PNX-MDATA-2	B05d
PNX-MDATA-3	B05d
PNX-MDATA-4	B05d
PNX-MDATA-5	B05d
PNX-MDATA-6	B05d
PNX-MDATA-7	B05d
PNX-MDATA-8	B05d
PNX-MDATA-9	B05d
PNX-MDQM-0	B05d
PNX-MDQM-1	B05d
PNX-MDQS-0	B05d
PNX-MDQS-1	B05d
PNX-MRAS	B05d
PNX-MWE	B05d
POD-MODE	B01
POD-MODE	B05e
POD-MODE	B05g
POWERDOWN-1394	B07a
POWERDOWN-1394	B11b
POWER-OK-DISPLAY	B05e
POWER-OK-DISPLAY	B16a
POWER-OK-PLATFORM-3V3	B05e
POWER-OK-PLATFORM-3V3	B07a
POWER-OK-PLATFORM-3V3	B16a
PR	B11b
PR	B14b
PROT_DC	B01
PROT-AUDIOSUPPLY	B05g
PROT-AUDIOSUPPLY	B16a
PSEN	B05e
PSEN	B05g
PWRDWN	B09d
R0e	B09d
R0o	B09d
R1e	B09d
R1o	B09d
R2e	B09d
R2o	B09d
R3e	B09d
R3o	B09d
R4e	B09d
R4o	B09d
R5e	B09d
R5o	B09d
R6e	B09d
R6o	B09d
R7e	B09d
R7o	B09d
RAS	B06b
RAS	B09d
RC	B05e
RC	B16a
REGIMBEAU	B07a
REGIMBEAU	B16b
RESET-1394	B07a
RESET-AUDIO	B05e
RESET-AUDIO	B08c
RESET-ETHERNET	B07a
RESET-ETHERNET	B15
RESET-FE-MAIN	B07a
RESET-FE-SUB	B07a
RESET-Main-NVM	B05e
RESET-Main-NVM	B08a
RESET-MIPS	B05e
RESET-MIPS	B07a
RESET-PNX2015	B05e
RESET-POD-CI	B07a
RESET-STBY	B05g
RESET-STBY	B08a
RESET-SYSTEM	B05e
RESET-SYSTEM	B07a
RESET-SYSTEM	B07e
RESET-SYSTEM	B12b
RESET-SYSTEM	B13b
RESET-TM	B06a
RESET-TM	B07a
RESET-UP	B05e
RESET-UP	B05g
RESET-USB20	B07a
RESET-USB20	B13a
RXD	B08a
RXD	B14b
RXD	B16b
RXD-UP	B05e
RXD-UP	B08a
RXD-VIPER	B07a
RXD-VIPER	B08a
SCL-AMBI	B09b
SCL-AMBI	B16a
SCL-DMA	B07a
SCL-DMA	B07e
SCL-DMA	B08a
SCL-DMA-BUS1	B06a
SCL-DMA-BUS1	B08a
SCL-DMA-BUS2	B04b
SCL-DMA-BUS2	B04f
SCL-DMA-BUS2	B05e
SCL-DMA-BUS2	B08a
SCL-I2C4	B07a
SCL-I2C4	B07e
SCL-I2C4	B09b
SCL-I2C4-DISP	B09b
SCL-I2C4-DISP	B09c
SCL-MM	B07a
SCL-MM	B07e
SCL-MM	B08a
SCL-MM-BUS1	B08a
SCL-MM-BUS1	B09b
SCL-MM-BUS1	B09d
SCL-MM-BUS1	B11b
SCL-MM-BUS2	B08a
SCL-MM-BUS2	B14b
SCL-MM-BUS2	B16a
SCL-MM-BUS2	B16b
SCL-MOP	B09b
SCL-MOP	B09d
SCL-TUN	B02
SCL-TUN	B08a
SCL-UP-SW	B05e
SCL-UP-VIP	B05e
SCL-UP-VIP	B07a
SCL-UP-VIP	B07e
SCL-UP-VIP	B08a
SDA-AMBI	B09b
SDA-AMBI	B16a
SDAC-VDDD	B05e
SDA-DMA	B07a
SDA-DMA	B07e
SDA-DMA	B08a
SDA-DMA-BUS1	B06a
SDA-DMA-BUS1	B08a
SDA-DMA-BUS2	B04b
SDA-DMA-BUS2	B04f
SDA-DMA-BUS2	B05e
SDA-DMA-BUS2	B08a
SDA-I2C4	B07a
SDA-I2C4	B07e
SDA-I2C4	B09b
SDA-I2C4-DISP	B09b
SDA-I2C4-DISP	B09c
SDA-MM	B07a
SDA-MM	B07e
SDA-MM	B08a
SDA-MM-BUS1	B08a
SDA-MM-BUS1	B09b
SDA-MM-BUS1	B09d
SDA-MM-BUS1	B11b
SDA-MM-BUS2	B08a
SDA-MM-BUS2	B14b
SDA-MM-BUS2	B16a
SDA-MM-BUS2	B16b
SDA-MOP	B09b
SDA-MOP	B09d
SDA-TUN	B02
SDA-TUN	B08a
SDA-UP-SW	B05e
SDA-UP-VIP	B05e
SDA-UP-VIP	B07a
SDA-UP-VIP	B07e
SDA-UP-VIP	B08a
SDM	B05e
SDM	B16b
SDM-PNX	B05e
SEL-DV1F	B07a
SEL-DV3F	B07a
SEL-IF-LL1	B04g
SEL-IF-LL1	B07a
SEL-IF-LL2	B04c
SEL-IF-LL2	B07a
SOUND-ENABLE	B07a
SOUND-ENABLE	B16a
SOUND-ENABLE-VPR	B07a
SPDIF-HDMI	B07c
SPDIF-HDMI	B11b
SPDIF-IN1	B07c
SPDIF-IN1	B14c
SPDIF-OPT-IN	B14c
SPDIF-OPT-IN	B16b
SPDIF-OUT1	B07c
SPDIF-OUT1	B14c
SPDIF-SEL-OUT1	B14c
SPI-1	B14b
SPI-1	B14c
SPI-2	B14b
SPI-2	B14c
SPI-CLK	B05e
SPI-CSB	B05e
SPI-OUT	B14b
SPI-OUT	B14c
SPI-PROG	B05e
SPI-PROG	B16b
SPI-PROG-PNX	B05e
SPI-SDI	B05e
SPI-SDO	B05e
SPI-WP	B05e
S-SCL-PIP	B02
S-SCL-PIP	B03
S-SDA-PIP	B02
S-SDA-PIP	B03
STANDBY	B05e
STANDBY	B16a
STBY-WP-NAND-FLASH	B05e
STBY-WP-NAND-FLASH	B08b
STROBE1N-MAIN	B04a
STROBE1N-MAIN	B05a
STROBE1N-SUB	B04e
STROBE1N-SUB	B05a
STROBE1P-MAIN	B04a
STROBE1P-MAIN	B05a
STROBE1P-SUB	B04e
STROBE1P-SUB	B05a
STROBE2N-MAIN	B04a
STROBE2N-MAIN	B05a
STROBE2N-SUB	B04e
STROBE2N-SUB	B05a
STROBE2P-MAIN	B04a
STROBE2P-MAIN	B05a
STROBE2P-SUB	B04e
STROBE2P-SUB	B05a
STROBE3N-MAIN	B04a
STROBE3N-MAIN	B05a
STROBE3N-SUB	B04e
STROBE3N-SUB	B05a
STROBE3P-MAIN	B04a
STROBE3P-MAIN	B05a
STROBE3P-SUB	B04e
STROBE3P-SUB	B05a
SUPPLY-FAULT	B05e
SUPPLY-FAULT	B09b
SUPPLY-FAULT	B16b
TEMP-SENSOR	B05e
TS-CLK	B07c
TS-DATA0	B07c
TS-DATA1	B07c
TS-DATA2	B07c
TS-DATA3	B07c
TS-DATA4	B07c
TS-DATA5	B07c
TS-DATA6	B07c
TS-DATA7	B07c
TS-SOP	B07c
TS-VALID	B07c
TUNN-REF	B05c
TUN-SPIDER-RX-BUSY	B05c
TUN-SPIDER-RX-BUSY	B06a
TUN-SPIDER-RX-CLKN	B05c
TUN-SPIDER-RX-CLKN	B06a
TUN-SPIDER-RX-CLKP	B05c
TUN-SPIDER-RX-CLKP	B06a
TUN-SPIDER-RX-DATA0	B05c
TUN-SPIDER-RX-DATA0	B06a
TUN-SPIDER-RX-DATA1	B05c
TUN-SPIDER-RX-DATA1	B06a
TUN-SPIDER-RX-DATA10	B05c
TUN-SPIDER-RX-DATA10	B06a
TUN-SPIDER-RX-DATA11	B05c
TUN-SPIDER-RX-DATA11	B06a
TUN-SPIDER-RX-DATA12	B05c
TUN-SPIDER-RX-DATA12	B06a
TUN-SPIDER-RX-DATA13	B05c
TUN-SPIDER-RX-DATA13	B06a
TUN-SPIDER-RX-DATA14	B05c
TUN-SPIDER-RX-DATA14	B06a
TUN-SPIDER-RX-DATA15	B05c
TUN-SPIDER-RX-DATA15	B06a
TUN-SPIDER-RX-DATA2	B05c
TUN-SPIDER-RX-DATA2	B06a
TUN-SPIDER-RX-DATA3	B05c
TUN-SPIDER-RX-DATA3	B06a
TUN-SPIDER-RX-DATA4	B05c
TUN-SPIDER-RX-DATA4	B06a
TUN-SPIDER-RX-DATA5	B05c
TUN-SPIDER-RX-DATA5	B06a
TUN-SPIDER-RX-DATA6	B05c
TUN-SPIDER-RX-DATA6	B06a
TUN-SPIDER-RX-DATA7	B05c
TUN-SPIDER-RX-DATA7	B06a
TUN-SPIDER-RX-DATA8	B05c
TUN-SPIDER-RX-DATA8	B06a
TUN-SPIDER-RX-DATA9	B05c
TUN-SPIDER-RX-DATA9	B06a
TUN-SPIDER-TX-BUSY	B05c
TUN-SPIDER-TX-BUSY	B06a
TUN-SPIDER-TX-CLKN	B05c
TUN-SPIDER-TX-CLKN	B06a
TUN-SPIDER-TX-CLKP	B05c
TUN-SPIDER-TX-CLKP	B06a
TUN-SPIDER-TX-DATA0	B05c
TUN-SPIDER-TX-DATA0	B06a
TUN-SPIDER-TX-DATA1	B05c
TUN-SPIDER-TX-DATA1	B06a
TUN-SPIDER-TX-DATA10	B05c
TUN-SPIDER-TX-DATA10	B06a
TUN-SPIDER-TX-DATA11	B05c
TUN-SPIDER-TX-DATA11	B06a
TUN-SPIDER-TX-DATA12	B05c
TUN-SPIDER-TX-DATA12	B06a
TUN-SPIDER-TX-DATA13	B05c
TUN-SPIDER-TX-DATA13	B06a
TUN-SPIDER-TX-DATA14	B05c
TUN-SPIDER-TX-DATA14	B06a
TUN-SPIDER-TX-DATA15	B05c
TUN-SPIDER-TX-DATA15	B06a
TUN-SPIDER-TX-DATA2	B05c
TUN-SPIDER-TX-DATA2	B06a
TUN-SPIDER-TX-DATA3	B05c
TUN-SPIDER-TX-DATA3	B06a
TUN-SPIDER-TX-DATA4	B05c
TUN-SPIDER-TX-DATA4	B06a
TUN-SPIDER-TX-DATA5	B05c
TUN-SPIDER-TX-DATA5	B06a
TUN-SPIDER-TX-DATA6	B05c
TUN-SPIDER-TX-DATA6	B06a
TUN-SPIDER-TX-DATA7	B05c
TUN-SPIDER-TX-DATA7	B06a
TUN-SPIDER-TX-DATA8	B05c
TUN-SPIDER-TX-DATA8	B06a
TUN-SPIDER-TX-DATA9	B05c
TUN-SPIDER-TX-DATA9	B06a
TUNS-REF	B05c
TUN-VIPER-RX-BUSY	B05c
TUN-VIPER-RX-BUSY	B07c
TUN-VIPER-RX-CLKP	B05c
TUN-VIPER-RX-CLKP	B07c
TUN-VIPER-RX-DATA0	B05c
TUN-VIPER-RX-DATA0	B07c
TUN-VIPER-RX-DATA1	B05c
TUN-VIPER-RX-DATA1	B07c
TUN-VIPER-RX-DATA10	B05c
TUN-VIPER-RX-DATA10	B07c
TUN-VIPER-RX-DATA11	B05c
TUN-VIPER-RX-DATA11	B07c
TUN-VIPER-RX-DATA12	B05c
TUN-VIPER-RX-DATA12	B07c
TUN-VIPER-RX-DATA13	B05c
TUN-VIPER-RX-DATA13	B07c
TUN-VIPER-RX-DATA14	B05c
TUN-VIPER-RX-DATA14	B07c
TUN-VIPER-RX-DATA15	B05c
TUN-VIPER-RX-DATA15	B07c
TUN-VIPER-RX-DATA2	B05c
TUN-VIPER-RX-DATA2	B07c
TUN-VIPER-RX-DATA3	B05c
TUN-VIPER-RX-DATA3	B07c
TUN-VIPER-RX-DATA4	B05c
TUN-VIPER-RX-DATA4	B07c
TUN-VIPER-RX-DATA5	B05c
TUN-VIPER-RX-DATA5	B07c
TUN-VIPER-RX-DATA6	B05c
TUN-VIPER-RX-DATA6	B07c
TUN-VIPER-RX-DATA7	B05c
TUN-VIPER-RX-DATA7	B07c
TUN-VIPER-RX-DATA8	B05c
TUN-VIPER-RX-DATA8	B07c
TUN-VIPER-RX-DATA9	B05c
TUN-VIPER-RX-DATA9	B07c
TUN-VIPER-TX-BUSY	B05c
TUN-VIPER-TX-BUSY	B07c
TUN-VIPER-TX-CLKN	B05c
TUN-VIPER-TX-CLKN	B07c
TUN-VIPER-TX-CLKP	B05c
TUN-VIPER-TX-CLKP	B07c
TUN-VIPER-TX-DATA0	B05c
TUN-VIPER-TX-DATA0	B07c
TUN-VIPER-TX-DATA1	B05c
TUN-VIPER-TX-DATA1	B07c
TUN-VIPER-TX-DATA10	B05c
TUN-VIPER-TX-DATA10	B07c
TUN-VIPER-TX-DATA11	B05c
TUN-VIPER-TX-DATA11	B07c
TUN-VIPER-TX-DATA12	B05c
TUN-VIPER-TX-DATA12	B07c
TUN-VIPER-TX-DATA13	B05c
TUN-VIPER-TX-DATA13	B07c
TUN-VIPER-TX-DATA14	B05c
TUN-VIPER-TX-DATA14	B07c
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TUN-VIPER-TX-DATA15	B07c
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TUN-VIPER-TX-DATA2	B07c
TUN-VIPER-TX-DATA3	B05c
TUN-VIPER-TX-DATA3	B07c
TUN-VIPER-TX-DATA4	B05c
TUN-VIPER-TX-DATA4	B07c
TUN-VIPER-TX-DATA5	B05c
TUN-VIPER-TX-DATA5	B07c
TUN-VIPER-TX-DATA6	B05c
TUN-VIPER-TX-DATA6	B07c
TUN-VIPER-TX-DATA7	B05c
TUN-VIPER-TX-DATA7	B07c
TUN-VIPER-TX-DATA8	B05c
TUN-VIPER-TX-DATA8	B07c
TUN-VIPER-TX-DATA9	B05c
TUN-VIPER-TX-DATA9	B07c
TXAe-	B09c
TXAe-	B09d
TXAe+	B09c
TXAe+	B09d
TXAo-	B09c
TXAo-	B09d
TXAo+	B09c
TXAo+	B09d
TXBe-	B09c
TXBe-	B09d
TXBe+	B09c
TXBe+	B09d
TXBo-	B09c
TXBo-	B09d
TXBo+	B09c
TXBo+	B09d
TXCe-	B09c
TXCe-	B09d
TXCe+	B09c
TXCe+	B09d
TXCLKe-	B09c
TXCLKe-	B09d
TXCLKe+	B09c
TXCLKe+	B09d
TXCLKo-	B09c
TXCLKo-	B09d
TXCLKo+	B09c
TXCLKo+	B09d
TXCo-	B09c
TXCo-	B09d
TXCo+	B09c
TXCo+	B09d
TXD	B08a
TXD	B14b
TXD	B16b
TXDe-	B09c
TXDe-	B09d
TXDe+	B09c
TXDe+	B09d
TXDo-	B09c
TXDo-	B09d
TXDo+	B09c
TXDo+	B09d
TXD-UP	B05e
TXD-UP	B08a
TXD-VIPER	B07a
TXD-VIPER	B08a
TXPNXA-	B05b
TXPNXA+	B05b
TXPNXB-	B05b
TXPNXB+	B05b
TXPNXC-	B05b
TXPNXC+	B05b
TXPNXCLK-	B05b
TXPNXCLK+	B05b
TXPNXD-	B05b
TXPNXD+	B05b
TXPNXE-	B05b
TXPNXE+	B05b
UART-SWITCH	B05g
UART-SWITCH	B08a
UART-SWITCH-5V2	B08a
UART-SWITCHn	B08a
UDQS	B06b
UP-3V3	B05f
USB1-DM	B07a
USB1-DM-1	B07a
USB1-DP	B07a
USB1-DP-1	B07a
USB201-DM1	B07a
USB201-DM1	B13a
USB201-DP1	B07a
USB201-DP1	B13a
USB201-OC1	B07a
USB201-OC1	B13a
USB201-PWE1	B07a
USB201-PWE1	B13a
USB202-DM2	B07a
USB202-DM2	B13a
USB202-DP2	B07a
USB202-DP2	B13a
USB202-OC2	B13a
USB202-PWE2	B13a
USB2-DM	B07a
USB2-DM-1	B07a
USB2-DP	B07a
USB2-DP-1	B07a
USB-BUS-PW	B07a
USB-OVERCUR	B07a
VDISP	B09c
VISUAL-CHECK	B02
VISUAL-CHECK	B04c
VREF-AUD-POS	B04b
VREF-AUD-POS	B05a
VREF-DDR	B07b
VREF-DDR-PNX	B05d
VREFS	B06b
VREF-VPR	B07c
VSe	B09d
VSo	B09d
WE	B06b
WE	B09d
XIO-ACK	B07a
XIO-ACK	B08b
XIO-D10	B07a
XIO-D11	B07a
XIO-D12	B07a
XIO-D13	B07a
XIO-D14	B07a
XIO-D15	B07a
XIO-D8	B07a
XIO-D9	B07a
XIO-SEL0	B07a
XIO-SEL0	B08b
XIO-SEL1	B07a
XIO-SEL2	B07a
Y	B11b
Y	B14b
Y-CVBS-MON-OUT	B08b
Y-CVBS-MON-OUT	B16b

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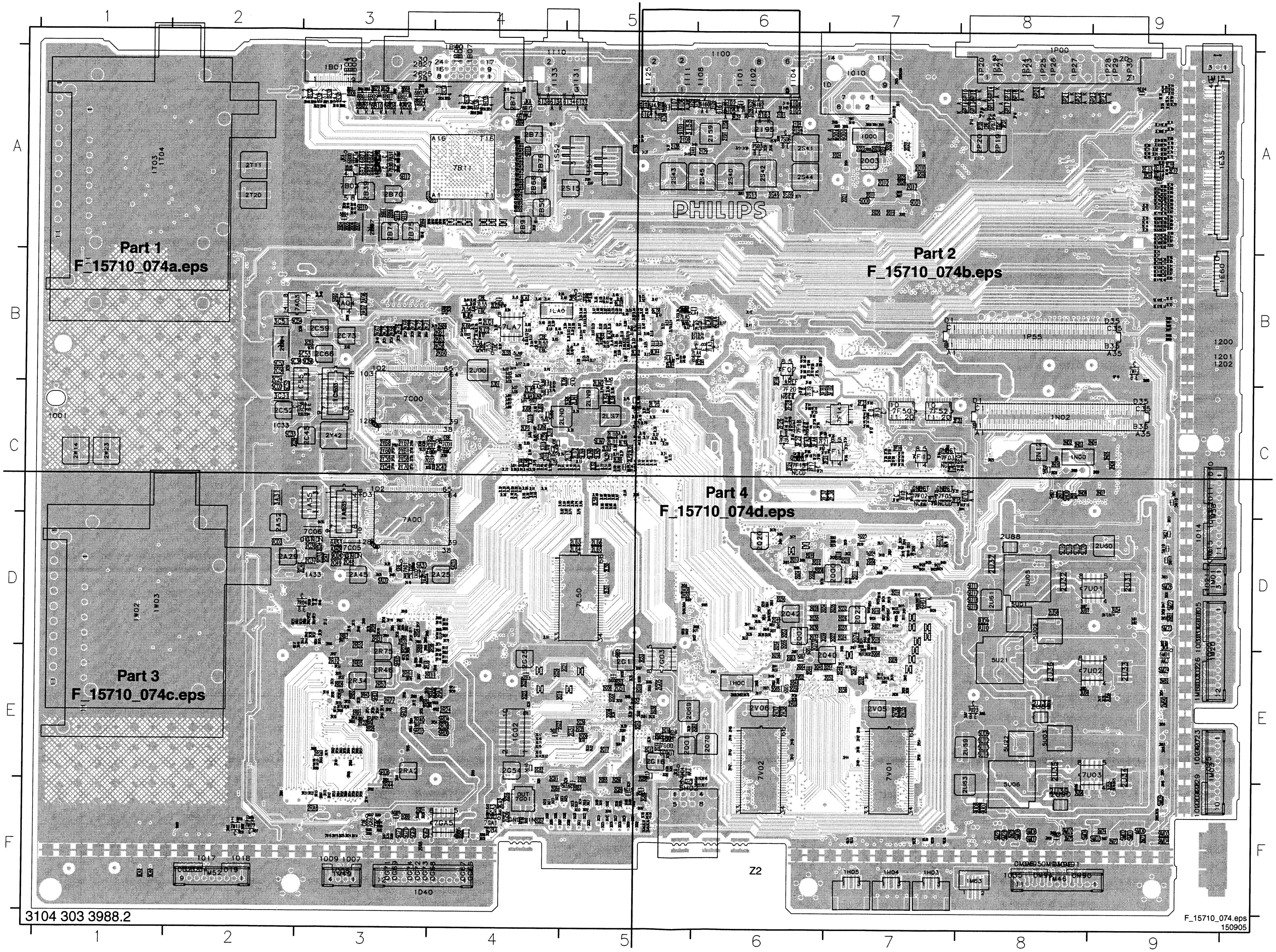
Layout SSB (v2) (Overview Top Side)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F
Part 1
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Part 2
F_15710_074b.eps
Part 3
F_15710_074c.eps
Part 4
F_15710_074d.eps
PHILIPS
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3104 303 3988.2

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Mapping SSB (v2) (Top Side)

1A33	D3
1A53	C3
1A55	C2
1A63	D3
1B01	A3
1B30	A3
1B31	A3
1B32	A3
1B33	A3
1B34	A4
1B35	A4
1B36	A4
1B37	A4
1B40	A4
1C33	C2
1C53	B3
1C55	C3
1C63	C3
1D40	F3
1E35	A9
1E60	B9
1G02	E4
1H00	E6
1H01	E6
1H03	F7
1H04	F7
1H05	F7
1I00	A5
1I07	A5
1I10	A5
1LA0	B4
1M01	D9
1M03	E9
1M15	A9
1M20	D9
1M36	D9
1M46	F9
1M49	F3
1M52	F2
1M63	F8
1N00	C9
1N02	C8
1O00	A7
1O10	A7
1P00	A7
1P55	B8
1S51	A5
1S52	A5
1T03	B1
1T04	B1
1W02	C1
1W03	E1
2A01	D3
2A10	D3
2A25	D4
2A29	D2
2A42	D3
2A45	D3
2A52	D2
2A88	B4
2A89	B4
2A93	B3
2A96	B3
2A97	B3
2A99	B3
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2BA1	A3
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2C01	C4
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2C34	D3
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2C39	C2
2C42	C4
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2C47	D3
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2E91	B9
2E92	A9
2E93	A9
2E94	A9
2E95	B9
2E96	B9
2F12	C7
2F14	C7
2F15	C7
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2F21	C6
2F23	C7
2F24	C6
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2F26	C6
2F27	C6
2F28	C6
2F33	C7
2F37	C6
2F38	C7
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2G01	E5
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2G69	F3
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2L63	D5
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2R57	D3
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7M12	B9
7P87	A8
7R04	D3
7S03	A6
7S06	A6
7U01	D9
7U02	E9
7U03	E9
7U23	E8
7V01	E7
7V02	E6
9A55	D3
9B11	A4
9B17	A4
9B18	A3
9B21	A4
9B22	A4
9C01	D3
9C03	D2
9C23	C3
9C55	B3
9E10	B9
9E11	B9
9E12	B9
9E13	B9
9E14	A9
9E16	A9
9E18	A9
9E19	A9
9E20	A9
9E21	A9
9E22	B9
9E23	B9
9E24	A9
9E25	B9
9E26	B9
9E27	B9
9E29	A9
9E31	A9
9E32	A9
9E33	A9
9E35	A9
9E37	A9
9E38	A9
9E40	F1
9E42	F1
9E46	A9
9E47	B9
9E48	B9
9E49	B9
9E50	B9
9E51	B9
9E52	B9
9E53	B9
9E54	B9
9E55	A9
9E56	A9
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9E59	A9
9E60	A9
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9E74	A9
9E75	A9
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9E77	A9
9E78	A9
9E79	A9
9E80	A9
9E81	A9
9E82	A9
9E83	A9
9E84	A9
9E85	A9
9E86	A9
9E87	A9
9E88	A9
9E90	A9
9E92	A9
9E94	A9
9E96	A9
9F04	B6
9F05	B6
9F06	C7
9F07	C7
9F08	C7
9F09	C6
9F11	C6
9F12	C7
9F19	C6
9F21	C6
9F22	C6
9F23	C6
9F24	C7
9F25	C7
9F26	C7
9F27	C6
9G00	E5
9G01	E5
9G66	F3
9G67	F3
9H01	D7
9H02	D5
9H03	D7
9H04	D7
9H05	D6
9H06	D5
9H07	D6
9H08	D5
9H09	D7
9H10	D7
9H11	D7
9H12	D7
9H13	D7
9H15	D7
9H16	D7
9H18	D7
9H19	D7
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9H22	D7
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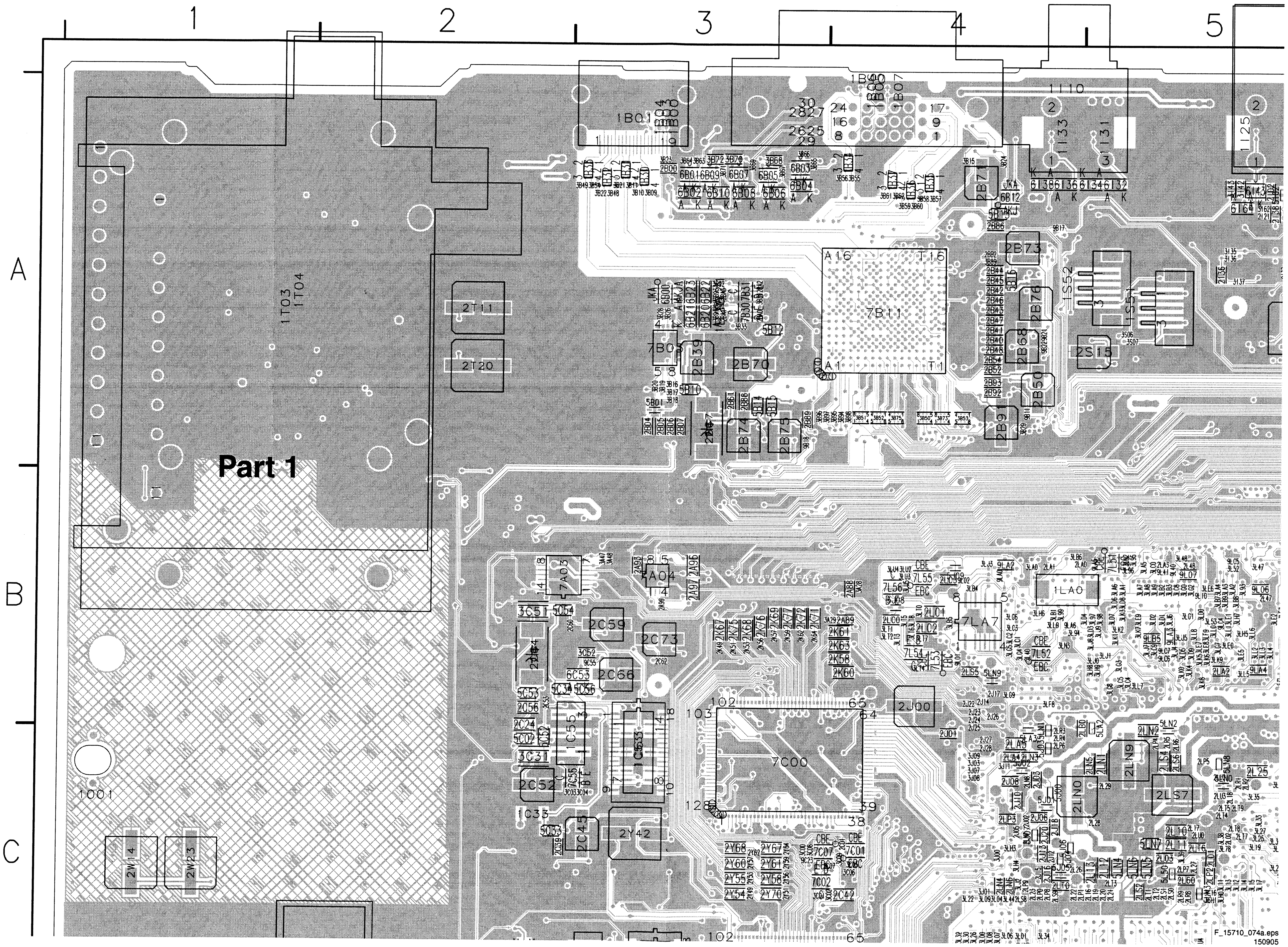
9H24	D7
9H25	D7
9H26	D7
9H27	D7
9H28	D7
9H29	D7
9H30	D6
9H31	D7
9H32	D7
9H33	D7
9H34	D7
9H35	D7
9H50	D7
9H51	D7
9H52	D7
9H53	D7
9H54	D7
9H55	D7
9H56	D7
9H57	D7
9H59	D7
9I37	A5
9I91	A5
9I94	A6
9L01	B4
9L02	B4
9L06	B5
9L07	B5
9L10	B5
9L40	B5
9L41	B5
9LA0	B4
9LA2	B4
9LA3	B5
9LA4	B5
9LA5	B5
9LA6	B4
9LA7	B5
9LB4	B6
9LB5	B5
9LC4	B5
9LC5	B5
9LC6	B5
9LC7	B5
9M02	F8
9M03	F9
9M04	F9
9M08	B9
9M09	F2
9P10	B9
9Q28	F7
9Q29	F7
9Q30	F7
9Q32	F7
9Q33	F7
9Q34	F7
9R01	D3
9R02	E4
9R03	E3
9R04	E3
9R05	E3
9R06	E4
9R08	D3
9R13	F3
9R14	E3
9R15	E3
9R17	D2
9R20	D3
9R21	D3
9R22	D3
9R23	D2
9R25	E3
9R26	E3
9R50	E4
9R51	E4
9U07	F8
9U08	F8
9U09	D8
9U10	D8

Personal Notes:

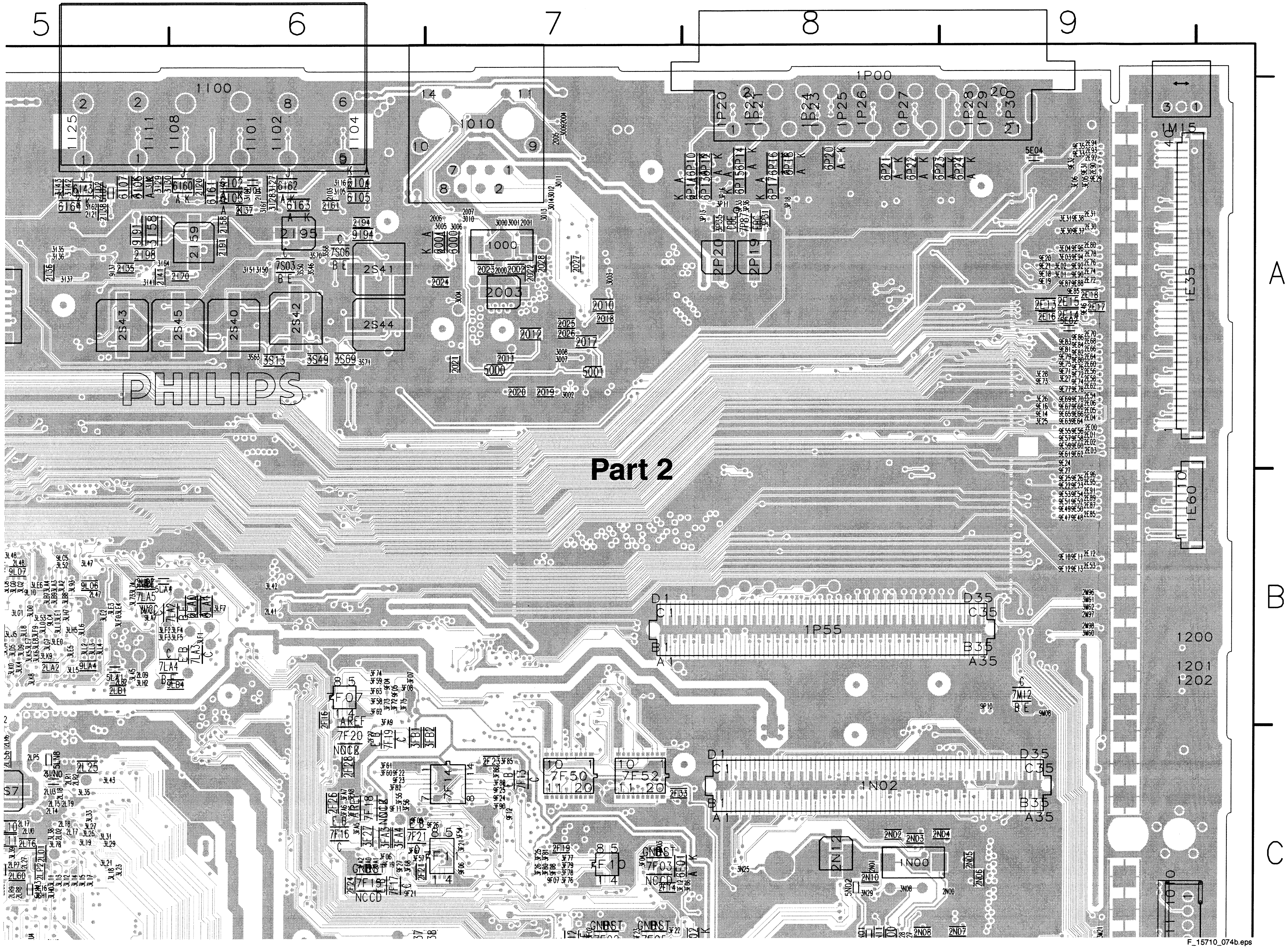
E_06532_012.eps
131004

Layout SSB (v2) (Part 1 Top Side)


1
2
3
4
5
A
B
C
Part 1
1T03
1T04
2T11
2T20
1B01
1B04
1B06
1B07
1110
1133
1131
1125
7B11
A16
T16
A1
T1
7B05
2B39
2B70
2B71
2B73
2B76
2B68
2B50
2B91
2B74
2B75
1S52
1S51
2S15
7A03
7A04
1LA0
7LA7
2C59
2C73
2C66
2C52
2C45
2Y42
1C55
1C33
1001
2W14
2W23
7C00
102
103
65
64
128
39
38
2J00
2LN0
2LN9
2LS7
7L55
7L56
7L52
7C07
7C01
7C02

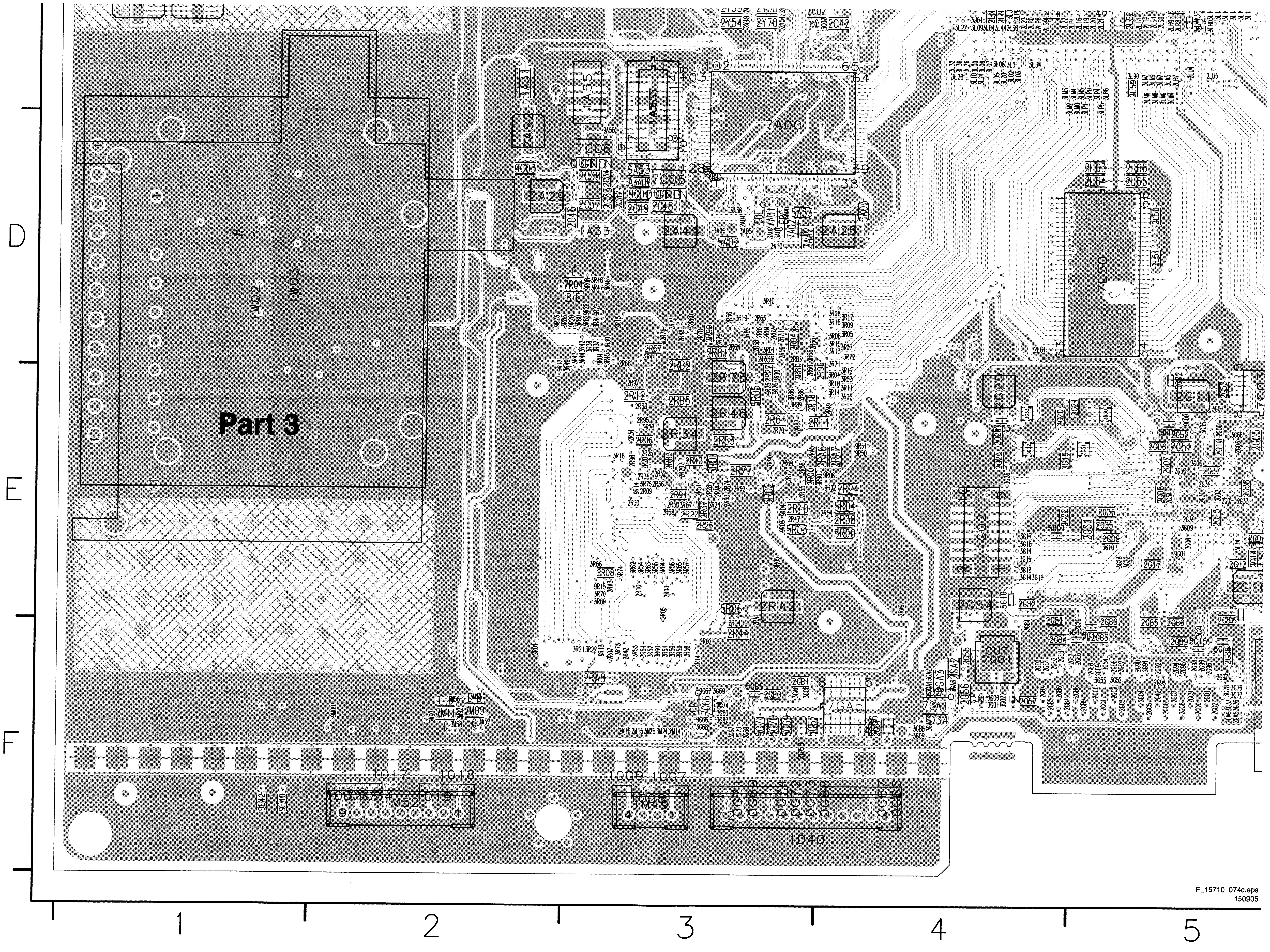
F_15710_074a.eps
150905

Layout SSB (v2) (Part 2 Top Side)


5
6
7
8
9
A
B
C
1100
1010
1P00
1000
2003
1P55
1N02
1N00
1E35
1E60
1M15
1200
1201
1202
PHILIPS
Part 2

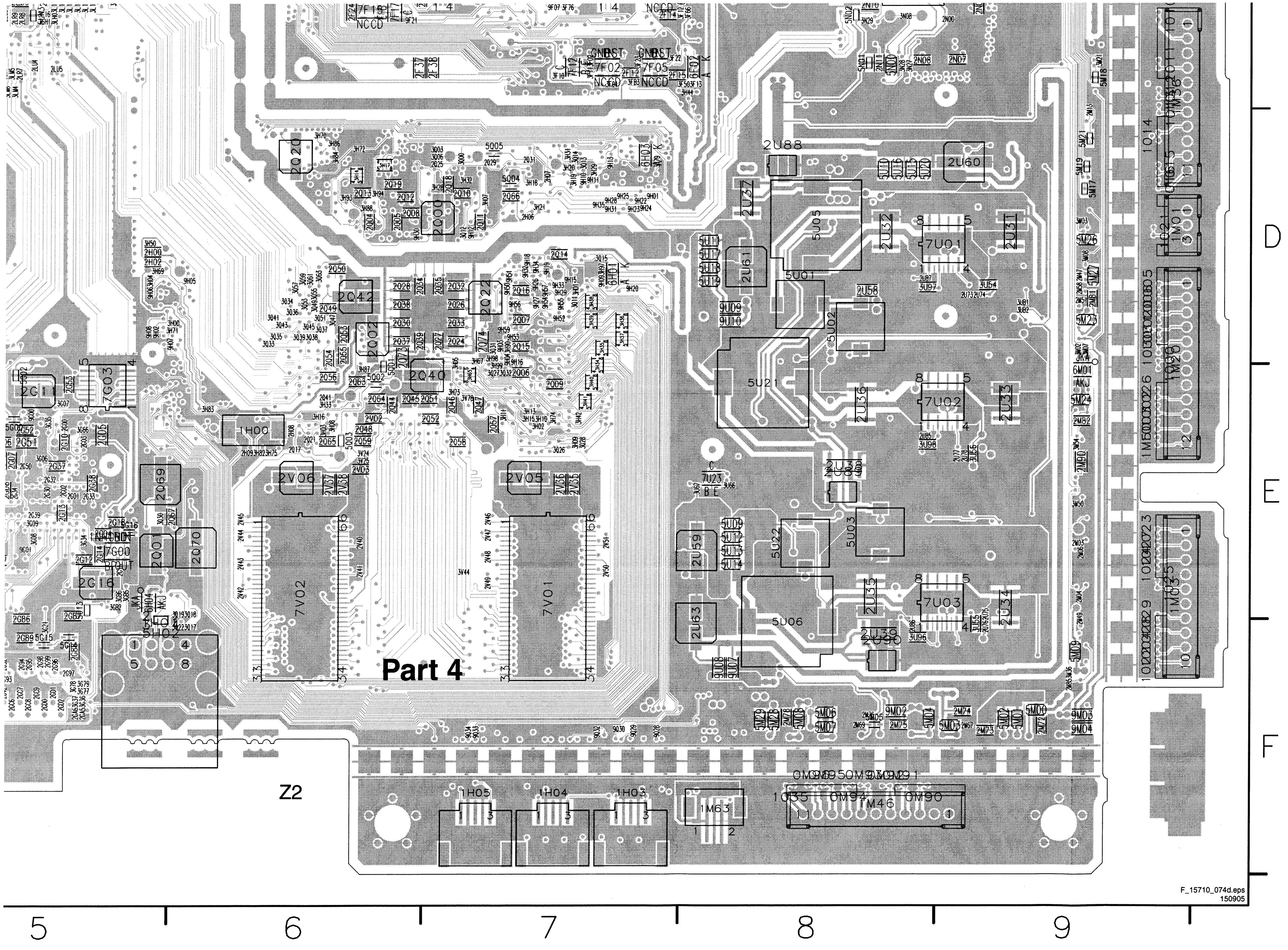
F_15710_074b.eps
150905

Layout SSB (v2) (Part 3 Top Side)


Part 3
1W02
1W03
7A00
7L50
1G02
7G01
7GA5
1D40
1M52
1M49
1017
1018
1009
1007
D
E
F
1
2
3
4
5

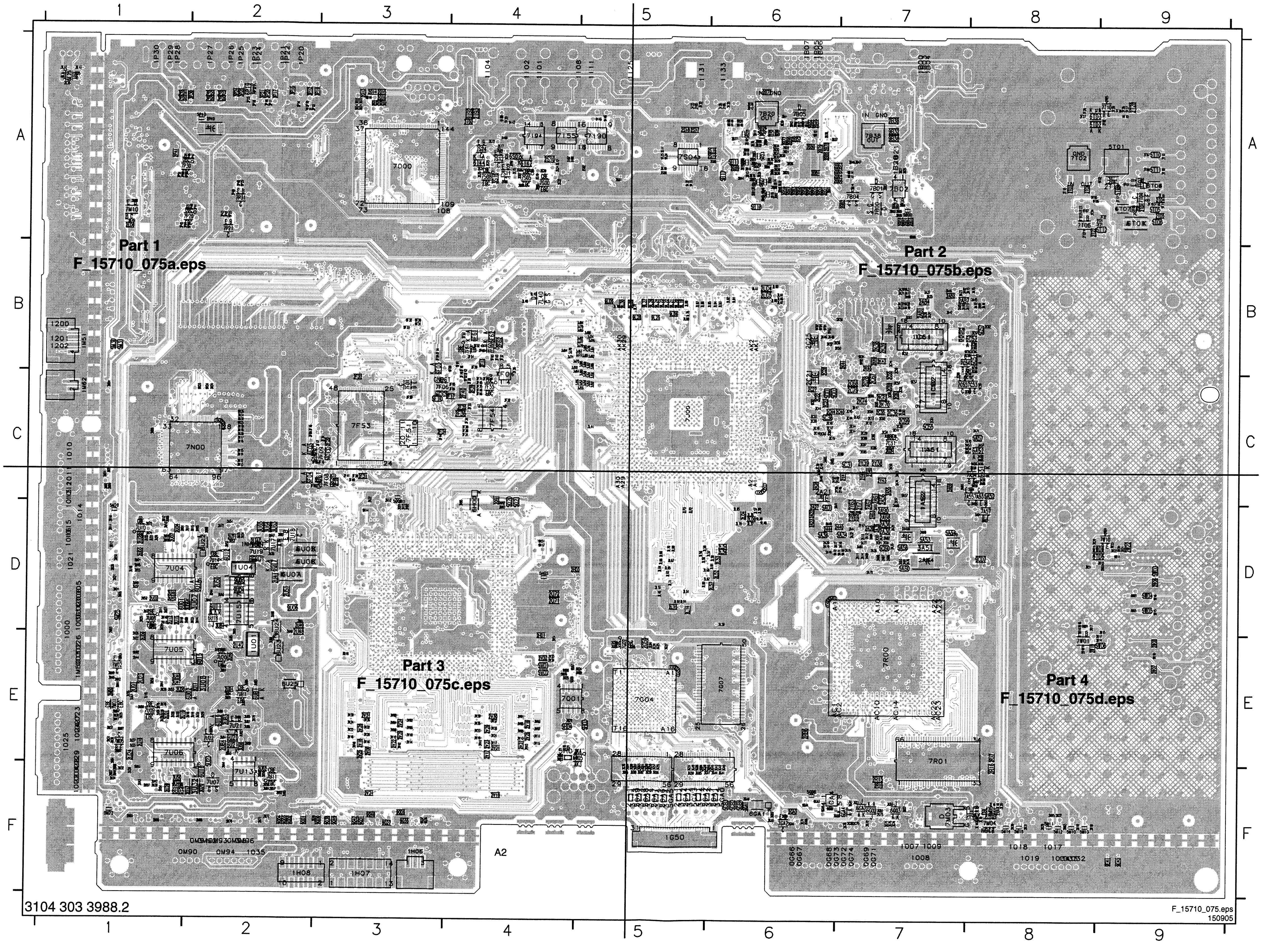
F_15710_074c.eps
150905

Layout SSB (v2) (Part 4 Top Side)


Part 4
Z2
7V02
7V01
7U01
7U02
7U03
5U05
5U21
5U06
5U01
5U02
5U03
5U22
1H00
1H05
1H04
1H03
1M63
1M46
1M36
1M01
1M20
1M025
7G03
7G00
2U88
2U60
2U61
2U59
2U63
2V06
2V05
2Q20
2Q42
2Q02
2Q40
2Q22
2Q01
2Q70
2G69
2G11
2G16
D
E
F
5
6
7
8
9

F_15710_074d.eps
150905

Layout SSB (v2) (Overview Bottom Side)


Part 1
F_15710_075a.eps
Part 2
F_15710_075b.eps
Part 3
F_15710_075c.eps
Part 4
F_15710_075d.eps
7000
7N00
7F53
7U04
7U05
7U06
7U13
7G04
7007
7R00
7R01
1G50
1H06
1H07
1H05
A2
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9
3104 303 3988.2
F_15710_075.eps
150905

Mapping SSB (v2) (Bottom Side)

1A51	C7
1A52	C7
1A61	C7
1A62	D7
1C51	B7
1C52	B7
1C61	B7
1C62	C7
1G50	F5
1H06	F3
1H07	F3
1H08	F2
1M51	B1
1M62	C1
1U01	E2
1U04	D2
2A02	D7
2A03	C6
2A04	D7
2A05	C6
2A06	D7
2A07	D7
2A08	D7
2A09	D7
2A11	D7
2A12	D7
2A13	D7
2A14	D7
2A15	D7
2A16	D7
2A17	D6
2A18	D6
2A19	D6
2A20	D6
2A21	C6
2A22	D6
2A23	D6
2A24	D7
2A26	D7
2A27	D6
2A28	C6
2A30	D7
2A31	D7
2A32	D7
2A33	D7
2A35	D7
2A36	D7
2A39	D7
2A40	D7
2A41	D7
2A44	D6
2A50	C7
2A53	C8
2A54	C8
2A55	C7
2A56	C7
2A57	C7
2A59	D7
2A60	D7
2A61	C7
2A63	D7
2A64	D7
2A65	D7
2A66	D7
2A67	C7
2A68	D7
2A69	C7
2A70	C8
2A71	C8
2A74	C7
2A75	D7
2A76	D7
2A77	D7
2A81	B7
2A82	B7
2A84	B7
2A85	B7
2A87	B7
2A90	D7
2A91	B8
2A92	B7
2A98	B7
2B01	A7
2B02	A7
2B03	A7
2B10	A6
2B11	A6
2B12	A6
2B13	A6
2B14	A6
2B15	A6
2B16	A6
2B17	A6
2B18	A6
2B20	A6
2B21	A6
2B22	A6
2B23	A6
2B24	A6
2B25	A6
2B26	A6
2B27	A6
2B28	A6
2B29	A6
2B30	A6
2B34	A6
2B35	A6
2B36	A6
2B37	A6
2B38	A7
2B49	A6
2B51	A6
2B53	A6
2B55	A6
2B56	A6
2B57	A6
2B58	A6
2B59	A6
2B60	A6
2B62	A6
2B63	A6
2B64	A6
2B66	A6
2B69	A6
2B72	A6
2B77	A6
2B78	A6
2B79	A6
2B80	A6
2B81	A6
2B82	A7
2B83	A6
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2B87	A6
2B90	A6
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2BB4	A6
2BB5	A6
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2BB7	A6
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2C02	C7
2C03	C7
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2C06	C7
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2C08	C7
2C09	C7
2C10	C7
2C11	C7
2C12	C7
2C13	C7
2C14	C7
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2C17	C6
2C18	C6
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2C22	C6
2C23	C6
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2C27	C6
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2C30	C7
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2C40	C7
2C41	C7
2C44	C6
2C50	B7
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2C57	C7
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2C63	C7
2C65	C7
2C67	C7
2C68	C7
2C69	C7
2C70	B7
2C72	C7
2C74	B7
2C78	C7
2C79	C7
2C80	C7
2C81	D7
2C82	B8
2C83	C6
2C99	C7
2E08	A1
2E19	F8
2E20	F8
2E25	A1
2E26	A1
2F13	B4
2F17	C4
2F18	C3
2F20	C3
2F31	C3
2F32	C3
2F34	C3
2F35	C4
2F36	C4
2F39	C4
2F40	C4
2F62	B4
2G58	E5
2G59	E5
2G66	F6
2G71	F7
2G72	F7
2G73	F7
2G75	F7
2G76	F7
2GA1	F6
2GA3	F6
2GA4	F6
2H01	E4
2H03	D4
2H12	C3
2H13	D3
2I05	A5
2I06	A6
2I92	A4
2I93	A4
2K38	B7
2K39	B7
2K40	B7
2K41	B7
2K42	B7
2K43	B7
2K45	B7
2K46	B6
2K47	C7
2K48	B6
2K50	B6
2K52	B6
2K54	B7
2K55	B6
2K65	C7
2K66	C7
2K70	C7
2K73	C7
2K74	C7
2L00	D6
2L04	D6
2L05	D6
2L14	D5
2L15	D5
2L52	D6
2L53	D6
2L54	D6
2L55	D5
2L56	D6
2L57	D6
2L58	D6
2LC4	B6
2LC5	B6
2M00	C1
2M01	C1
2M02	C1
2M05	E1
2M07	F1
2M08	F1
2M10	D1
2M11	D1
2M12	D1
2M18	F8
2M19	F8
2M20	D1
2M21	D1
2M22	F8
2M29	F8
2M30	F8
2M31	F8
2M50	D1
2M62	F8
2M65	F1
2M66	F1
2M68	F2
2M70	F2
2M71	F2
2M77	F2
2M80	E1
2M83	E1
2M94	C1
2M95	F8
2O13	A3
2O14	A3
2O15	A3
2O16	A3
2P10	A2
2P13	A2
2P14	A2
2P17	A2
2P18	A2
2P40	A2
2P41	A1
2Q71	D4
2Q72	D4
2Q91	C4
2Q92	D4
2Q93	D4
2R15	F7
2R16	F8
2R17	E8
2R19	F7
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2S18	A5
2S19	A6
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2T05	A9
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2U02	D1
2U03	D1
2U04	D1
2U05	D2
2U06	D2
2U07	D1
2U08	D1
2U09	E1
2U10	D1
2U11	E2
2U12	D1
2U13	D1
2U14	D2
2U15	D1
2U16	E2
2U17	F2
2U18	E1
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2U21	E1
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2U24	E1
2U25	D1
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2U27	E1
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2U40	D2
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2U46	E2
2U47	D2
2U48	E2
2U49	D2
2U50	D2
2U51	D2
2U52	D1
2U53	E1
2U54	F1
2U55	D1
2U56	E1
2U57	F1
2U62	F2
2U71	D2
2U72	D2
2U79	E2
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2U91	E1
2U92	D2
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2V01	E4
2V16	E4
2V17	E4
2V18	E3
2V19	F4
2V20	E4
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2V23	E4
2V24	E3
2V25	E3
2V26	E4
2V27	E4
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2Y66	D7
2Y69	D7
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3A27	B7
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3A40	C6
3A41	D6
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3A57	C8
3A58	C8
3A59	C8
3A60	C7
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3A65	C8
3A66	C8
3A67	C8
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3A81	D7
3A83	D7
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3B02	A7
3B03	A7
3B04	A7
3B05	A7
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3B86	A6
3B87	A6
3B88	A6
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3C32	C7
3C33	C6
3C34	C7
3C39	C6
3C40	C6
3C41	C6
3C43	C7
3C44	C7
3C45	C7
3C50	B8
3C53	C7
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3C59	B7
3C60	C7
3C61	C7
3C63	B7
3C65	B8
3C66	B8
3C67	B7
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3C83	D7
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3E08	A1
3E12	A1
3E13	A1
3E14	F8
3E15	F8
3E16	F8
3E17	F8
3E18	F8
3E19	F8
3E20	F8
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3F09	C2
3F14	B3
3F15	C3
3F16	C2
3F17	C3
3F18	B4
3F19	C4
3F20	C3
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3F35	C4
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3F40	C3
3F41	C3
3F42	C4
3F43	B4
3F44	C3
3F45	C4
3F46	C4
3F47	C4
3F48	C4
3F49	B4
3F51	B4
3F52	B4
3F53	B4
3F64	C4
3F65	C2
3F70	C4
3F71	C4
3FB4	B3
3FB5	C2
3FB6	C2
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3G04	E5
3G05	E5
3G24	E5
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3G27	E5
3G28	F7
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3N14	C2
3N15	C2
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3N17	C2
3N18	C2
3N19	C2
3N24	C2
3N30	C2
3N31	C2
3N32	C2
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3O22	A3
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3O24	A3
3O25	A3
3O26	A3
3O27	A3
3O28	A3
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3P17	A2
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3P49	A2
3P50	A1
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3Q25	E4
3Q29	E4
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3S16	A4
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3S22	A4
3S23	A4
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3W14	E9
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3W21	D8
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3W23	D9
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6T03	A8
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7B02	A7
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7B05	A6
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7F04	C4
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7F08	C3
7F09	C3
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7F53	C3
7F54	C4
7F55	C4
7F60	B4
7F61	B4
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7G05	E5
7G06	E5
7G07	E6
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7I55	A4
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7L40	B4
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7P31	A2
7Q01	E4
7R00	E7
7R01	E7
7S00	A4
7S04	A5
7S05	A4
7S08	A4
7S11	A4
7S12	A4
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7T02	A8
7T03	A9
7T04	A9
7T06	A8
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7U06	E1
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7U08	D1
7U09	E1
7U10	D1
7U11	F2
7U13	F2
7U14	D2
7U15	D2
7U16	D2
7U17	D2
7U18	D2
7U19	D2
7U20	E2
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7V00	D3
7W01	E8
7W10	D8
9A10	D7
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9A12	D6
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9B13	A7
9B14	A7
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9B16	A6
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9B20	A6
9B32	A7
9B38	A7
9C02	C6
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9C51	B7
9C52	B7
9C53	B7
9C54	B7
9C56	B7
9C57	C7
9C58	B7
9C59	C8
9E41	F9
9E43	F9
9E45	A1
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9F01	B4
9F02	C4
9F03	B4
9F30	B3
9F31	B3
9F32	B3
9F33	B3
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9GA3	F6
9GA4	F6
9GA5	F6
9GA6	F6
9H14	D3
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9H21	D4
9I20	A4
9I32	A5
9I33	A5
9I42	A4
9I45	A5
9I46	A5
9I89	A4
9I92	A4
9K01	B7
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9L26	B5
9L27	B5
9L28	B5
9L29	B5
9L30	B5
9L42	B4
9LA1	B6
9LA8	D6
9LA9	D6
9LB6	B5
9M01	E1
9M07	E1
9N23	C2
9N24	C2
9N25	C2
9N26	C2
9O16	A3
9P21	A1
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9P23	A2
9P24	A1
9P25	A2
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9Q00	F3
9Q01	F2
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9Q03	F2
9Q04	F2
9Q05	F3
9Q06	E4
9Q07	E4
9Q08	E4
9Q09	E4
9Q27	F3
9Q31	F3
9Q35	F3
9Q36	F3
9Q37	F3
9Q38	F3
9Q47	F3
9Q48	F3
9Q49	F3
9S34	A5
9S35	A5
9T01	A9
9T02	A8
9T05	A8
9T06	A8
9T07	A8
9T10	A9
9T11	A9
9U01	D1
9U02	E1
9U03	F1
9U04	D2
9U05	D2
9U06	D2
9W01	D8
9W10	E9
9W11	D9
9Y01	B6
9Y02	B6
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9Y04	B6
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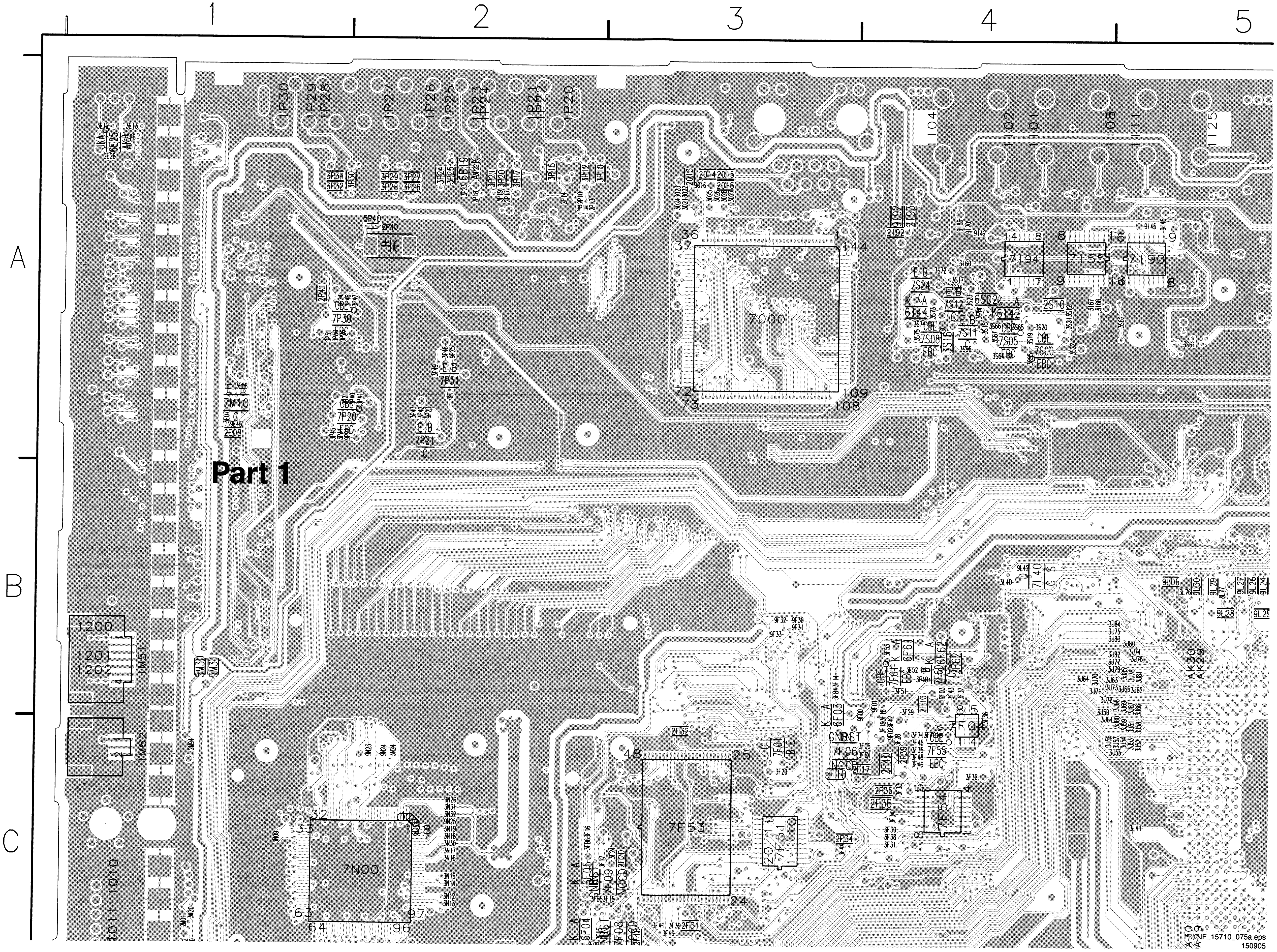
Personal Notes:

E_06532_012.eps
131004

Layout SSB (v2) (Part 1 Bottom Side)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A
B
C
Part 1
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7F53
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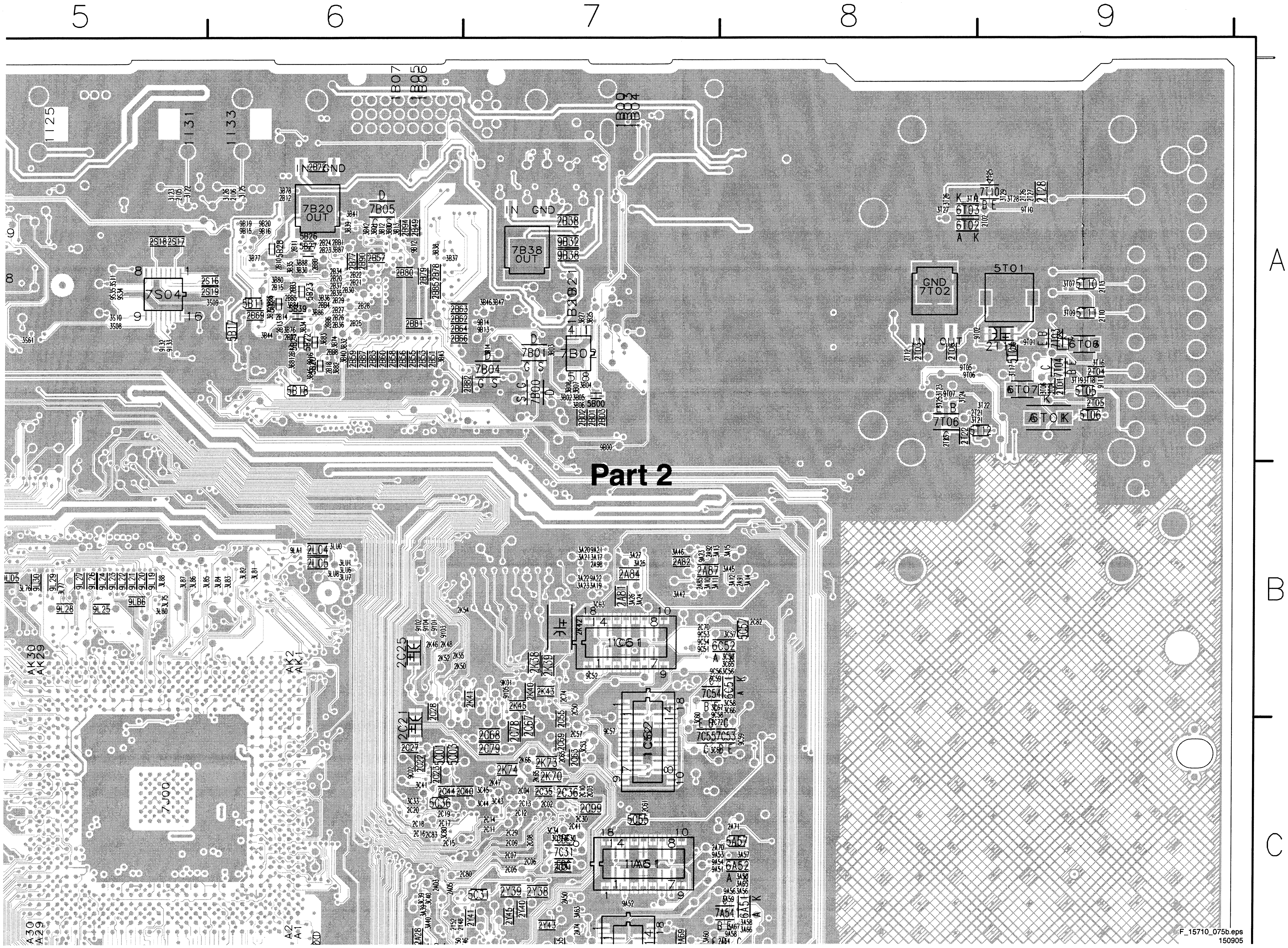
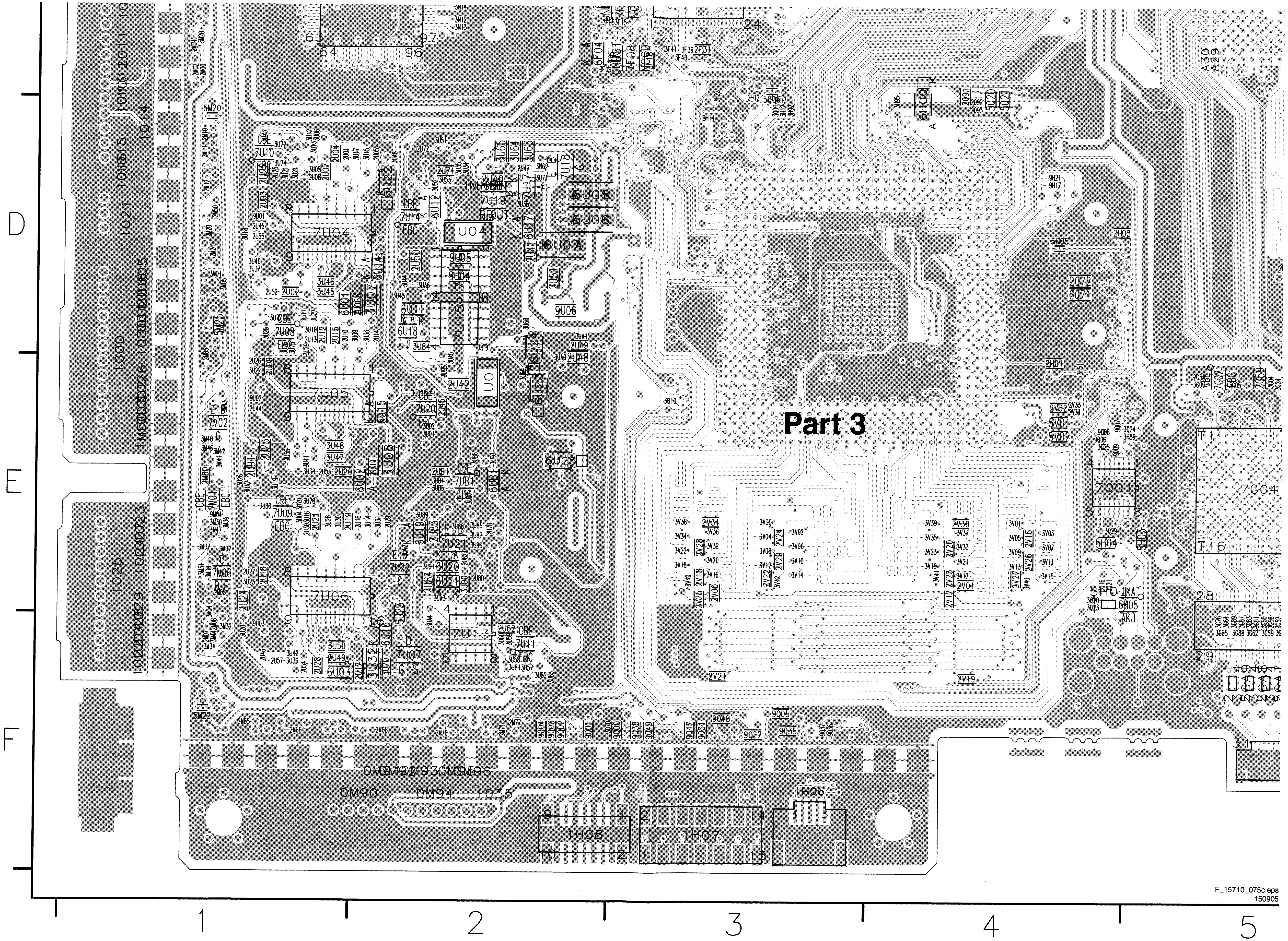
7155
7190
1200
1201
1202
1M51
1M62
1010
2011
1104
1102
1101
1108
1111
1125
1P30
1P29
1P28
1P27
1P26
1P25
1B23
1B24
1B21
1B22
1P20
7P30
7P31
7P20
7P21
7M10
7S24
7S08
7S12
7S11
7S05
7S00
7L40
7F06
7F55
7F51
AK30
AK29
F_15710_075a.eps
150905

Layout SSB (v2) (Part 2 Bottom Side)


5
6
7
8
9
A
B
C
Part 2
7B20
7B38
7S04
5T01
7T02
1C51
1C52
1A51
7J00

F_15710_075b.eps
150905

Layout SSB (v2) (Part 3 Bottom Side)


Part 3
D
E
F
1
2
3
4
5
7U04
7U05
7U06
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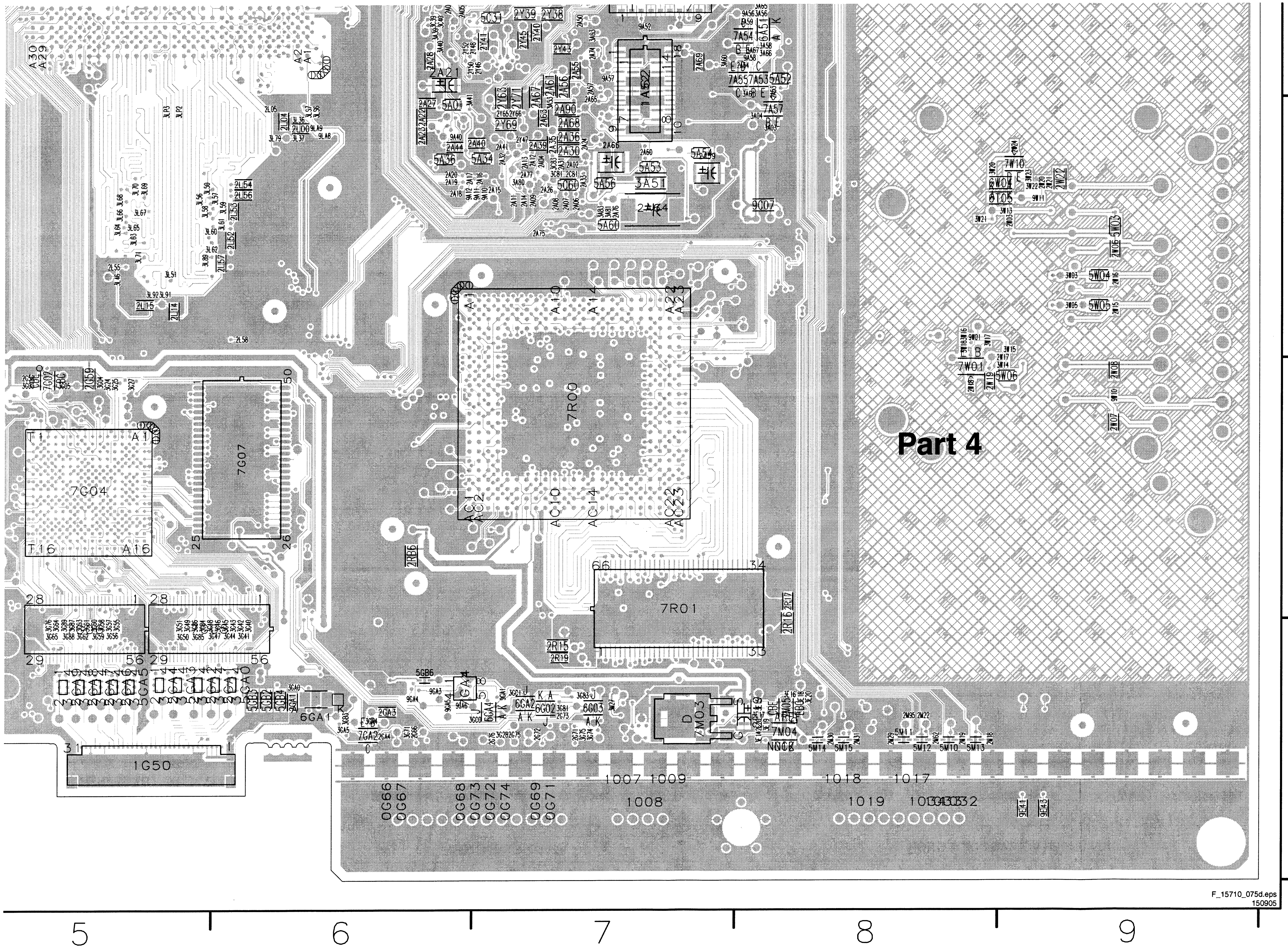
7U15
1U04
1U01
7Q01
7C04
1H08
1H07
1H06
1000
1025
1035
0M90
0M94
6H00
6U07
6U25
5H04
5H05
2H03
2H01
7M02
7M06
7U07
7U11
7U21
7U22
2V21
2V19
A30
A29

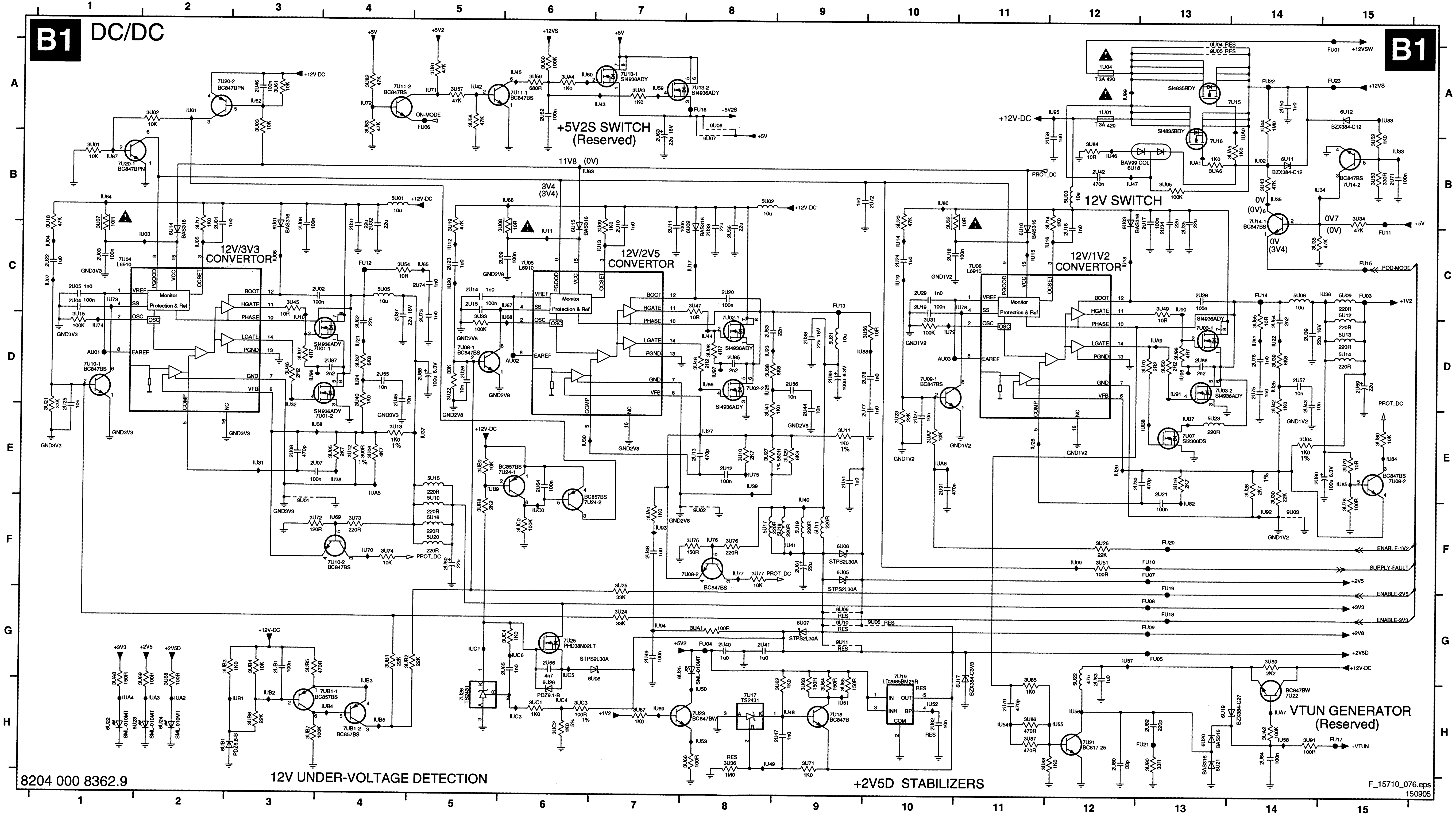
F_15710_075c.eps
150905

Layout SSB (v2) (Part 4 Bottom Side)


Part 4
7R00
7R01
7G04
7G07
1G50
6GA1
7ZM03
9C07
5A60
3A51
5A53
1007 1009
1008
1018 1017
1019
D
E
F
5
6
7
8
9
F_15710_075d.eps
150905

SSB (v3): DC / DC

1U01	A12
1U04	A12
2U01	C2
2U02	C3
2U03	C1
2U04	C1
2U05	C1
2U06	C3
2U07	E3
2U08	E3
2U09	C6
2U10	C7
2U11	C7
2U12	E8
2U13	E8
2U14	C5
2U15	C5
2U16	C12
2U17	B13
2U18	C10
2U19	C10
2U20	C8
2U21	E13
2U22	C1
2U23	C5
2U24	C10
2U25	E1
2U26	D5
2U27	E10
2U28	C13
2U29	C10
2U30	E13
2U31	C4
2U32	C4
2U33	C8
2U34	B13
2U35	B13
2U36	C8
2U37	D4
2U38	D9
2U39	D14
2U40	G8
2U41	G8
2U42	B12
2U43	D14
2U44	E9
2U45	D4
2U46	A3
2U47	H9
2U48	F7
2U49	G7
2U50	A14
2U51	E9
2U52	D4
2U53	D8
2U54	D14
2U55	D4
2U56	D9
2U57	D14
2U58	B12
2U59	D15
2U60	F5
2U61	F9
2U62	A6
2U63	B7
2U64	E6
2U65	G6
2U66	G6
2U71	B15
2U72	B10
2U73	D5
2U74	C5
2U75	D14
2U76	D14
2U77	E10
2U78	D10
2U79	H11
2U80	H12
2U82	H13
2U83	G12
2U84	H14
2U85	D8
2U86	D13
2U87	D4
2U88	D5
2U89	D9
2U90	E14
2U91	E10
2U92	H10
2UB1	G3
3U01	B1
3U02	A2
3U03	A3
3U04	E14
3U05	E4
3U06	E4
3U07	C1
3U08	C5
3U09	C7
3U10	E8
3U11	E9
3U12	E4
3U13	E4
3U14	B12
3U15	D1
3U16	E13
3U17	C2
3U18	C1
3U19	C5
3U20	B10
3U21	E1
3U22	D5
3U23	E10
3U24	G7
3U25	F7
3U26	F12
3U27	E8
3U28	E14
3U29	E9
3U30	E14
3U31	D10
3U32	B10
3U33	D5
3U34	B15
3U35	C14
3U36	H8
3U37	D4
3U38	D8
3U39	D14
3U40	D4
3U41	E8
3U42	D14
3U43	B14
3U44	A14
3U45	C3
3U46	D3
3U47	C8
3U48	D8
3U49	C13
3U50	D13
3U51	F12
3U52	B15
3U53	B15
3U54	C4
3U55	D14
3U56	D10
3U57	A5
3U58	A5
3U59	A6
3U60	A6
3U61	A3
3U62	H9
3U63	H9
3U64	H9
3U65	H9
3U66	H8
3U67	H7
3U68	H2
3U69	H2
3U70	D13
3U71	H9
3U72	F3
3U73	F4
3U74	F4
3U75	F8
3U76	F8
3U77	F8
3U78	F15
3U79	E15
3U80	E15
3U81	A5
3U82	A4
3U83	A4
3U84	B12
3U85	G11
3U86	H11
3U87	H11
3U88	H12
3U89	G14
3U90	H13
3U91	H14
3U95	B13
3U96	D13
3U97	D3
3U98	D8
3UA0	F7
3UA1	G8
3UA2	H14
3UA3	A7
3UA4	A6
3UA5	B14
3UA6	B13
3UA7	E10
3UA8	H1
3UB1	G4
3UB2	G5
3UB3	G3
3UB4	G3
3UB5	G3
3UB6	H3
3UB7	H3
3UB8	F5
3UB9	E5
3UC0	F6
3UC1	H6
3UC2	H6
3UC3	H6
3UC4	G6
5U01	B4
5U02	B8
5U03	B12
5U05	C4
5U06	C14
5U09	C15
5U10	F5
5U11	F9
5U12	C15
5U13	D15
5U14	D15
5U15	E5
5U16	F5
5U17	F8
5U18	F9
5U19	F9
5U20	F5
5U21	D9
5U22	G12
5U23	E13
6U01	C3
6U02	C8
6U03	B12
6U05	F9
6U06	F9
6U07	G9
6U08	G7
6U11	B14
6U12	A15
6U14	C2
6U15	C6
6U16	C11
6U17	G11
6U18	B12
6U19	H13
6U20	H13
6U21	H13
6U22	H1
6U23	H1
6U24	H2
6U25	G8
6U26	H6
6UB1	H3
7U01-1	D4
7U01-2	E3
7U02-1	D8
7U02-2	D8
7U03-1	D13
7U03-2	D13
7U04	C1
7U05	C6
7U06	C11
7U07	E13
7U08-1	D5
7U08-2	F8
7U09-1	D10
7U09-2	E15
7U10-1	D1
7U10-2	F4
7U11-1	A6
7U11-2	A4
7U13-1	A7
7U13-2	A8
7U14-1	B14
7U14-2	B15
7U15	A14
7U16	B13
7U17	H8
7U18	H9
7U19	G10
7U20-1	B1
7U20-2	A3
7U21	H12
7U22	H14
7U23	H8
7U24-1	E5
7U24-2	F6
7U25	G6
7U26	H5
7UB1-1	H4
7UB1-2	H4
9U01	F3
9U02	F8
9U03	F14
9U04	A13
9U05	A13
9U06	G10
9U07	B8
9U08	A8
9U09	G9
9U10	G9
9U11	G9
AU01	D1
AU02	D6
AU03	D10
FU01	A15
FU03	C15
FU04	G8
FU05	G13
FU06	A5
FU07	F13
FU08	G13
FU09	G13
FU10	F13
FU11	C15
FU12	C4
FU13	C9
FU14	C14
FU15	C15
FU16	A8
FU17	H15
FU18	G13
FU19	F13
FU20	F13
FU21	H13
FU22	A14
FU23	A15
IU02	B14
IU03	C2
IU04	C1
IU05	C2
IU06	C3
IU07	C1
IU08	E3
IU09	F12
IU10	D3
IU11	C6
IU12	C5
IU13	C7
IU14	C10
IU15	C11
IU16	C11
IU17	C8
IU18	C12
IU19	C10
IU20	C5
IU21	D4
IU22	D14
IU23	D8
IU24	D4
IU25	D14
IU26	D8
IU27	E8
IU28	E11
IU29	E12
IU30	E6
IU31	E3
IU32	E3
IU33	B15
IU34	B14
IU35	B14
IU36	C15
IU37	E5
IU38	E4
IU39	E8
IU40	E9
IU41	F9
IU42	A5
IU43	A7
IU44	D8
IU45	A6
IU46	B12
IU47	B12
IU48	H9
IU49	H8
IU50	H8
IU51	H9
IU52	H10
IU53	H8
IU54	H11
IU55	H12
IU56	H12
IU57	G12
IU58	H14
IU59	A7
IU60	A6
IU61	A2
IU62	A3
IU63	B6
IU64	B1
IU65	C5
IU66	B6
IU67	C6
IU68	D6
IU69	F4
IU70	F4
IU71	A5
IU72	A4
IU73	C1
IU74	D1
IU75	E8
IU76	F8
IU77	F8
IU78	C11
IU79	D10
IU80	B10
IU81	D14
IU82	F13
IU83	A15
IU84	E15
IU85	E15
IU86	D8
IU87	B1
IU88	D9
IU89	H7
IU90	C13
IU91	D13
IU92	F14
IU93	F7
IU94	G7
IU95	A12
IU96	D3
IU97	D8
IU98	D13
IU99	A12
IUA0	A14
IUA1	B13
IUA2	H2
IUA3	H2
IUA4	H1
IUA5	E4
IUA6	E10
IUA7	H14
IUA9	D13
IUB1	H3
IUB2	H3
IUB3	H4
IUB4	H4
IUB5	H4
IUB7	E13
IUB8	E13
IUB9	E5
IUC0	F6
IUC1	G5
IUC3	H6
IUC4	H6
IUC5	G6
IUC6	G6



B1
DC/DC
12V/3V3 CONVERTOR
12V/2V5 CONVERTOR
12V/1V2 CONVERTOR
+5V2S SWITCH (Reserved)
12V SWITCH
12V UNDER-VOLTAGE DETECTION
+2V5D STABILIZERS
VTUN GENERATOR (Reserved)
Monitor Protection & Ref
VREF
SS
OSC
EAREF
BOOT
HGATE
PHASE
LGATE
PGND
GND
VFB
COMP
NC
PGOOD
VCC
OCSET
SI4936ADY
SI4835BDY
BC847BPN
BC847BS
BC857BS
BC847BW
BC847B
BC817-25
PHD38N02LT
STPS2L30A
TS2431
LD2985BM25R
BAV99 COL
BZX384-C12
PDZ6.8-B
PDZ9.1-B
SML-010MT
IN
OUT
INH
BP
COM
RES
T3A 420
11V8 (0V)
3V4 (3V4)
0V (0V)
0V7 (0V)
0V (3V4)
+12V-DC
+12VS
+12VSW
+5V
+5V2
+5V2S
+3V3
+2V5
+2V5D
+1V2
+2V8
+VTUN
PROT_DC
POD-MODE
ON-MODE
ENABLE-1V2
SUPPLY-FAULT
ENABLE-2V5
ENABLE-3V3
GND3V3
GND2V8
GND2V5
GND1V2
8204 000 8362.9
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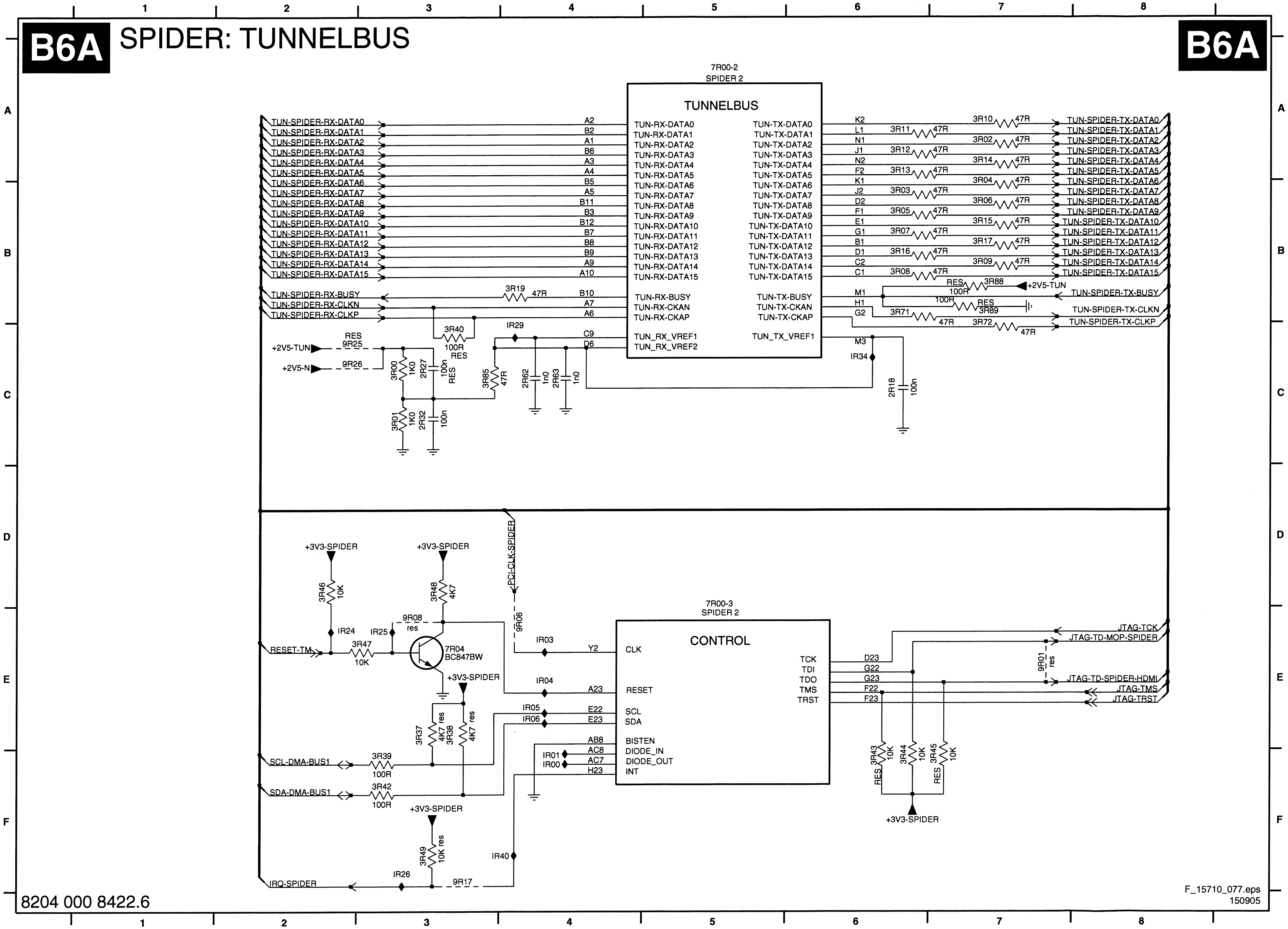
SSB (v3): SPIDER: Tunnel Bus


B6A
SPIDER: TUNNELBUS
B6A
7R00-2
SPIDER 2
TUNNELBUS
TUN-RX-DATA0
TUN-RX-DATA1
TUN-RX-DATA2
TUN-RX-DATA3
TUN-RX-DATA4
TUN-RX-DATA5
TUN-RX-DATA6
TUN-RX-DATA7
TUN-RX-DATA8
TUN-RX-DATA9
TUN-RX-DATA10
TUN-RX-DATA11
TUN-RX-DATA12
TUN-RX-DATA13
TUN-RX-DATA14
TUN-RX-DATA15
TUN-RX-BUSY
TUN-RX-CKAN
TUN-RX-CKAP
TUN_RX_VREF1
TUN_RX_VREF2
TUN-TX-DATA0
TUN-TX-DATA1
TUN-TX-DATA2
TUN-TX-DATA3
TUN-TX-DATA4
TUN-TX-DATA5
TUN-TX-DATA6
TUN-TX-DATA7
TUN-TX-DATA8
TUN-TX-DATA9
TUN-TX-DATA10
TUN-TX-DATA11
TUN-TX-DATA12
TUN-TX-DATA13
TUN-TX-DATA14
TUN-TX-DATA15
TUN-TX-BUSY
TUN-TX-CKAN
TUN-TX-CKAP
TUN_TX_VREF1
TUN-SPIDER-RX-DATA0
TUN-SPIDER-RX-DATA1
TUN-SPIDER-RX-DATA2
TUN-SPIDER-RX-DATA3
TUN-SPIDER-RX-DATA4
TUN-SPIDER-RX-DATA5
TUN-SPIDER-RX-DATA6
TUN-SPIDER-RX-DATA7
TUN-SPIDER-RX-DATA8
TUN-SPIDER-RX-DATA9
TUN-SPIDER-RX-DATA10
TUN-SPIDER-RX-DATA11
TUN-SPIDER-RX-DATA12
TUN-SPIDER-RX-DATA13
TUN-SPIDER-RX-DATA14
TUN-SPIDER-RX-DATA15
TUN-SPIDER-RX-BUSY
TUN-SPIDER-RX-CLKN
TUN-SPIDER-RX-CLKP
A2 B2 A1 B6 A3 A4 B5 A5 B11 B3 B12 B7 B8 B9 A9 A10
B10 A7 A6 C9 D6
K2 L1 N1 J1 N2 F2 K1 J2 D2 F1 E1 G1 B1 D1 C2 C1
M1 H1 G2 M3
3R10 47R
3R11 47R
3R02 47R
3R12 47R
3R14 47R
3R13 47R
3R04 47R
3R03 47R
3R06 47R
3R05 47R
3R15 47R
3R07 47R
3R17 47R
3R16 47R
3R09 47R
3R08 47R
RES 3R88 100R
+2V5-TUN
100R RES 3R89
3R71 47R
3R72 47R
TUN-SPIDER-TX-DATA0
TUN-SPIDER-TX-DATA1
TUN-SPIDER-TX-DATA2
TUN-SPIDER-TX-DATA3
TUN-SPIDER-TX-DATA4
TUN-SPIDER-TX-DATA5
TUN-SPIDER-TX-DATA6
TUN-SPIDER-TX-DATA7
TUN-SPIDER-TX-DATA8
TUN-SPIDER-TX-DATA9
TUN-SPIDER-TX-DATA10
TUN-SPIDER-TX-DATA11
TUN-SPIDER-TX-DATA12
TUN-SPIDER-TX-DATA13
TUN-SPIDER-TX-DATA14
TUN-SPIDER-TX-DATA15
TUN-SPIDER-TX-BUSY
TUN-SPIDER-TX-CLKN
TUN-SPIDER-TX-CLKP
3R19 47R
3R40 100R RES
IR29
RES 9R25
+2V5-TUN
+2V5-N
9R26
3R00 1K0
2R27 100n
RES
3R85 47R
2R62 1n0
2R63 1n0
3R01 1K0
2R32 100n
IR34
2R18 100n
PCI-CLK-SPIDER
+3V3-SPIDER
+3V3-SPIDER
3R46 10K
3R48 4K7
IR24
IR25
9R08 res
RESET-TM
3R47 10K
7R04 BC847BW
+3V3-SPIDER
9R06
IR03
IR04
IR05
IR06
3R37 4K7 res
3R38 4K7 res
SCL-DMA-BUS1
3R39 100R
SDA-DMA-BUS1
3R42 100R
+3V3-SPIDER
3R49 10K res
IR40
IRQ-SPIDER
IR26
9R17
IR01
IR00
7R00-3
SPIDER 2
CONTROL
Y2 A23 E22 E23 AB8 AC8 AC7 H23
CLK
RESET
SCL
SDA
BISTEN
DIODE_IN
DIODE_OUT
INT
TCK
TDI
TDO
TMS
TRST
D23 G22 G23 F22 F23
JTAG-TCK
JTAG-TD-MOP-SPIDER
9R01 res
JTAG-TD-SPIDER-HDMI
JTAG-TMS
JTAG-TRST
3R43 10K RES
3R44 10K
3R45 10K RES
+3V3-SPIDER
1 2 3 4 5 6 7 8
A B C D E F
8204 000 8422.6
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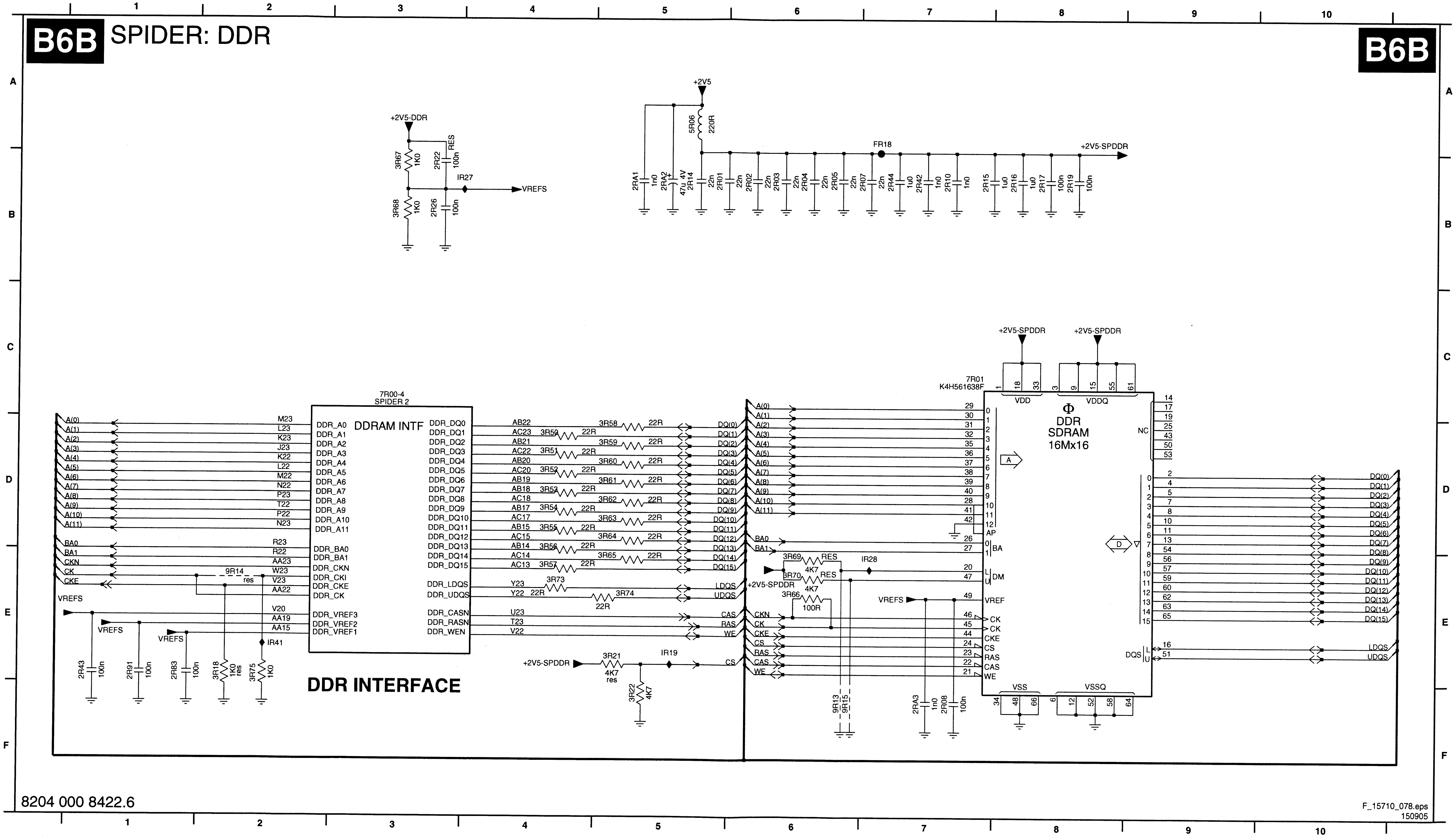
2R18	C6
2R27	C3
2R32	C3
2R62	C4
2R63	C4
3R00	C3
3R01	C3
3R02	A7
3R03	B6
3R04	B7
3R05	B6
3R06	B7
3R07	B6
3R08	B6
3R09	B7
3R10	A7
3R11	A6
3R12	A6
3R13	A6
3R14	A7
3R15	B7
3R16	B6
3R17	B7
3R19	B4
3R37	E3
3R38	E3
3R39	F3
3R40	C3
3R42	F3
3R43	F6
3R44	F6
3R45	F7
3R46	D2
3R47	E3
3R48	D3
3R49	F3
3R71	B6
3R72	C7
3R85	C3
3R88	B7
3R89	B7
7R00-2	A5
7R00-3	D5
7R04	E3
9R01	E7
9R06	E4
9R08	E3
9R17	F3
9R25	C2
9R26	C2
IR00	F4
IR01	F4
IR03	E4
IR04	E4
IR05	E4
IR06	E4
IR24	E2
IR25	E3
IR26	F3
IR29	C4
IR34	C6
IR40	F4

SSB (v3): SPIDER: DDR

2R01	B5
2R02	B6
2R03	B6
2R04	B6
2R05	B6
2R07	B7
2R08	F7
2R10	B7
2R14	B5
2R15	B7
2R16	B8
2R17	B8
2R19	B8
2R22	B3
2R26	B3
2R42	B7
2R43	E1
2R44	B7
2R83	E1
2R91	E1
2RA1	B5
2RA2	B5
2RA3	F7
3R18	E2
3R21	E5
3R22	F5
3R50	D4
3R51	D4
3R52	D4
3R53	D4
3R54	D4
3R55	D4
3R56	D4
3R57	E4
3R58	D5
3R59	D5
3R60	D5
3R61	D5
3R62	D5
3R63	D5
3R64	D5
3R65	E5
3R66	E6
3R67	B3
3R68	B3
3R69	E6
3R70	E6
3R73	E4
3R74	E5
3R75	E2
5R06	A5
7R00-4	C3
7R01	C7
9R13	F6
9R14	E2
9R15	F6
FR18	A7
IR19	E5
IR27	B3
IR28	E7
IR41	E2


B6B SPIDER: DDR
B6B
1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
+2V5-DDR
3R67
1K0
2R22
100n
RES
IR27
VREFS
3R68
1K0
2R26
100n
+2V5
5R06
220R
FR18
+2V5-SPDDR
2RA1
1n0
2RA2
47µ 4V
2R14
22n
2R01
2R02
2R03
2R04
2R05
2R07
2R44
1u0
2R42
1n0
2R10
1n0
2R15
2R16
2R17
2R19
100n
7R00-4
SPIDER 2
DDRAM INTF
DDR INTERFACE
DDR_A0
DDR_A1
DDR_A2
DDR_A3
DDR_A4
DDR_A5
DDR_A6
DDR_A7
DDR_A8
DDR_A9
DDR_A10
DDR_A11
DDR_BA0
DDR_BA1
DDR_CKN
DDR_CKI
DDR_CKE
DDR_CK
DDR_VREF3
DDR_VREF2
DDR_VREF1
DDR_DQ0
DDR_DQ1
DDR_DQ2
DDR_DQ3
DDR_DQ4
DDR_DQ5
DDR_DQ6
DDR_DQ7
DDR_DQ8
DDR_DQ9
DDR_DQ10
DDR_DQ11
DDR_DQ12
DDR_DQ13
DDR_DQ14
DDR_DQ15
DDR_LDQS
DDR_UDQS
DDR_CASN
DDR_RASN
DDR_WEN
A(0)
A(1)
A(2)
A(3)
A(4)
A(5)
A(6)
A(7)
A(8)
A(9)
A(10)
A(11)
BA0
BA1
CKN
CK
CKE
9R14
res
VREFS
IR41
2R43
100n
2R91
100n
2R83
100n
3R18
1K0
res
3R75
1K0
3R50
3R51
3R52
3R53
3R54
3R55
3R56
3R57
3R58
3R59
3R60
3R61
3R62
3R63
3R64
3R65
22R
3R73
3R74
DQ(0)
DQ(1)
DQ(2)
DQ(3)
DQ(4)
DQ(5)
DQ(6)
DQ(7)
DQ(8)
DQ(9)
DQ(10)
DQ(11)
DQ(12)
DQ(13)
DQ(14)
DQ(15)
LDQS
UDQS
CAS
RAS
WE
CS
3R21
4K7
res
IR19
3R22
4K7
3R69
RES
3R70
4K7
3R66
100R
IR28
9R13
9R15
2RA3
1n0
2R08
100n
7R01
K4H561638F
VDD
VDDQ
Φ
DDR
SDRAM
16Mx16
NC
BA
AP
DM
VREF
DQS
VSS
VSSQ
8204 000 8422.6
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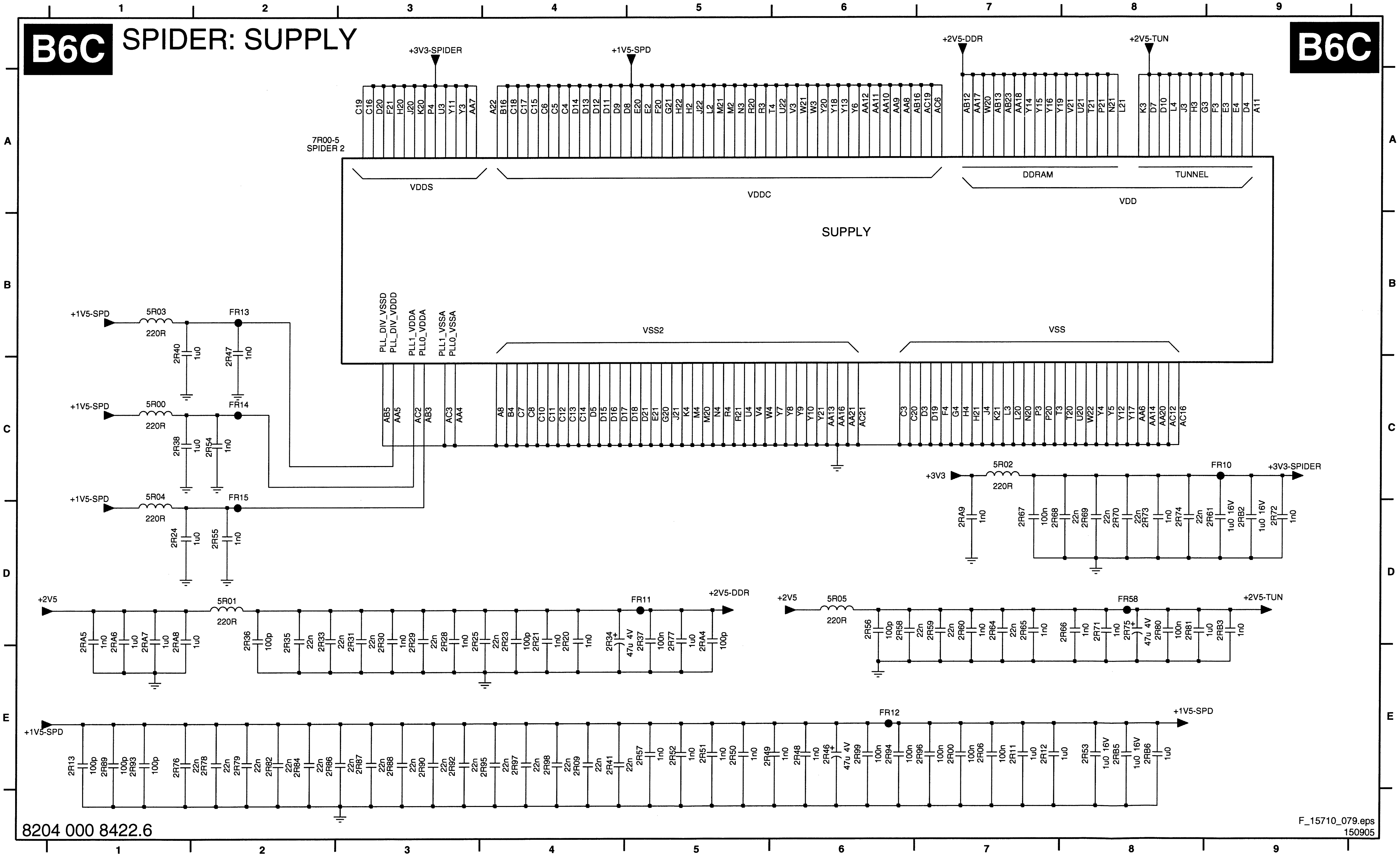
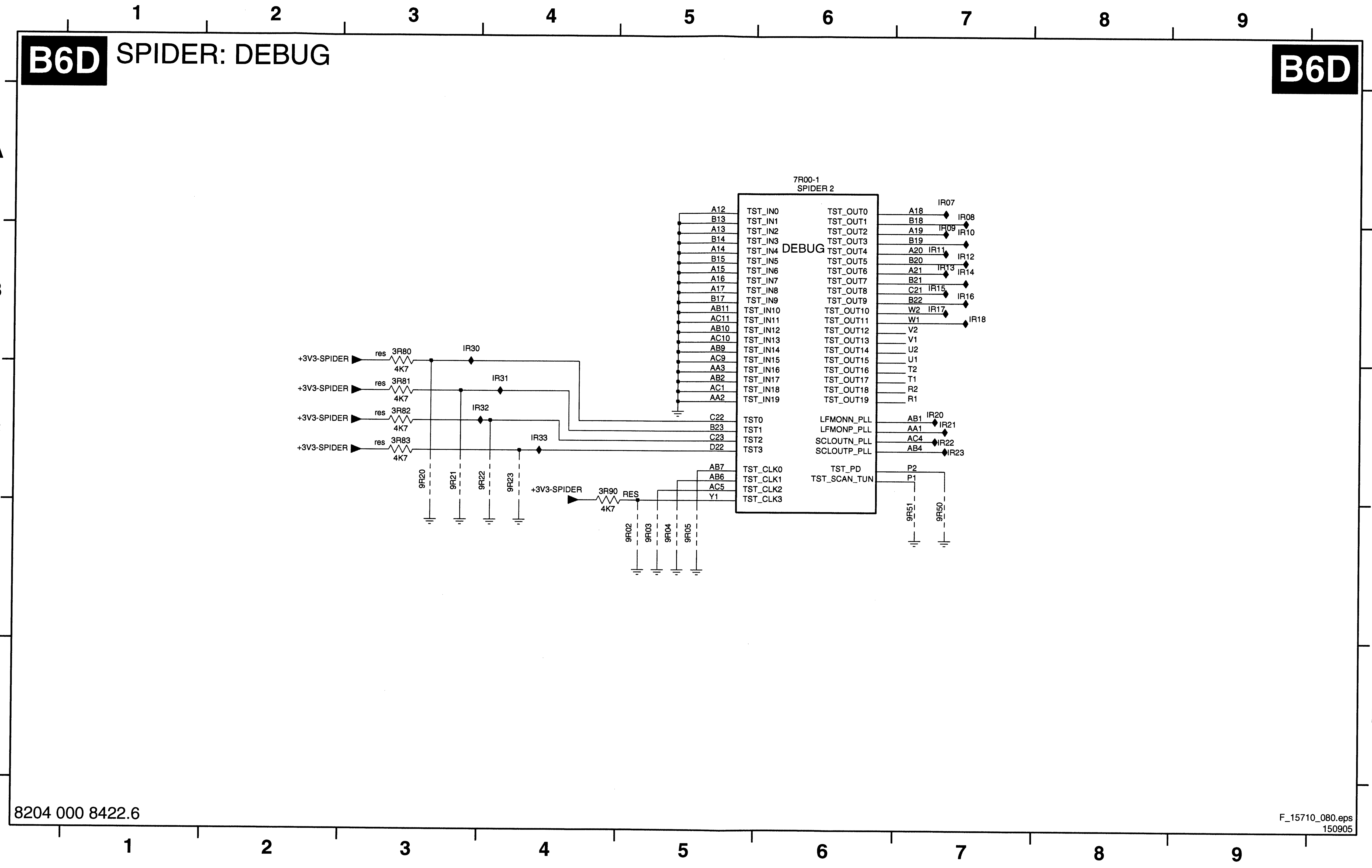
SSB (v3): SPIDER: Supply

2R00 E7	2R20 D4	2R29 D3	2R36 D2	2R47 B2	2R53 E8	2R59 D7	2R67 D7	2R73 D8	2R79 E2	2R87 E3	2R94 E6	2RA4 D5	2RB2 D9	5R02 C7	FR11 D5
2R06 E7	2R21 D4	2R30 D3	2R37 D5	2R48 E6	2R54 C2	2R60 D7	2R68 D7	2R74 D8	2R80 D8	2R88 E3	2R95 E4	2RA5 D1	2RB3 D9	5R03 B1	FR12 E6
2R09 E4	2R23 D4	2R31 D3	2R38 C1	2R49 E5	2R55 D2	2R61 D9	2R69 D8	2R75 D8	2R81 D8	2R89 E1	2R96 E7	2RA6 D1	2RB5 E8	5R04 C1	FR13 B2
2R11 E7	2R24 D1	2R33 D2	2R40 B1	2R50 E5	2R56 D6	2R64 D7	2R70 D8	2R76 E1	2R82 E2	2R90 E3	2R97 E4	2RA7 D1	2RB6 E8	5R05 D6	FR14 C2
2R12 E7	2R25 D3	2R34 D4	2R41 E4	2R51 E5	2R57 E5	2R65 D7	2R71 D8	2R77 D5	2R84 E2	2R92 E3	2R98 E4	2RA8 D1	5R00 C1	7R00-5 A2	FR15 C2
2R13 E1	2R28 D3	2R35 D2	2R46 E6	2R52 E5	2R58 D6	2R66 D8	2R72 D9	2R78 E2	2R86 E2	2R93 E1	2R99 E6	2RA9 D7	5R01 D2	FR10 C9	FR58 D8



1 2 3 4 5 6 7 8 9
A B C D E
B6C
SPIDER: SUPPLY
B6C
+3V3-SPIDER
+1V5-SPD
+2V5-DDR
+2V5-TUN
7R00-5
SPIDER 2
C19 C16 D20 F21 H20 J20 K20 P4 U3 Y11 Y3 AA7
A22 B16 C18 C17 C15 C6 C5 C4 D14 D13 D12 D11 D9 D8 E20 E2 F20 G21 H22 H2 J22 L2 M21 M2 N3 R20 R3 T4 U22 V3 W21 W3 Y20 Y18 Y13 Y6 AA12 AA11 AA10 AA9 AA8 AB16 AC19 AC6
AB12 AA17 W20 AB13 AB23 AA18 Y14 Y15 Y16 Y19 V21 U21 T21 P21 N21 L21
K3 D7 D10 L4 J3 H3 G3 F3 E3 E4 D4 A11
VDDS
VDDC
DDRAM
TUNNEL
VDD
SUPPLY
PLL_DIV_VSSD
PLL_DIV_VDDD
PLL1_VDDA
PLL0_VDDA
PLL1_VSSA
PLL0_VSSA
VSS2
VSS
AB5 AA5 AC2 AB3 AC3 AA4
A8 B4 C7 C8 C10 C11 C12 C13 C14 D5 D15 D16 D17 D18 D21 E21 G20 J21 K4 M4 M20 N4 R4 R21 U4 V4 W4 Y7 Y8 Y9 Y10 Y21 AA13 AA16 AA21 AC21
C3 C20 D3 D19 F4 G4 H4 H21 J4 K21 L3 L20 N20 P3 P20 T3 T20 U20 W22 Y4 Y5 Y12 Y17 AA6 AA14 AA20 AC12 AC16
+1V5-SPD
5R03
220R
FR13
2R40
1u0
2R47
1n0
+1V5-SPD
5R00
220R
FR14
2R38
1u0
2R54
1n0
+1V5-SPD
5R04
220R
FR15
2R24
1u0
2R55
1n0
+3V3
5R02
220R
FR10
+3V3-SPIDER
2RA9 1n0
2R67 100n
2R68 22n
2R69 22n
2R70 22n
2R73 1n0
2R74 22n
2R61 1u0 16V
2RB2 1u0 16V
2R72 1n0
+2V5
5R01
220R
FR11
+2V5-DDR
2RA5 1n0
2RA6 1u0
2RA7 1u0
2RA8 1u0
2R36 100p
2R35 22n
2R33 22n
2R31 22n
2R30 1n0
2R29 22n
2R28 1n0
2R25 22n
2R23 100p
2R21 1n0
2R20 1n0
2R34 47u 4V
2R37 100n
2R77 1u0
2RA4 100p
+2V5
5R05
220R
FR58
+2V5-TUN
2R56 100p
2R58 22n
2R59 22n
2R60 1n0
2R64 22n
2R65 1n0
2R66 1n0
2R71 1n0
2R75 47u 4V
2R80 100n
2R81 1u0
2RB3 1n0
+1V5-SPD
FR12
+1V5-SPD
2R13 100p
2R89 100p
2R93 100p
2R76 22n
2R78 22n
2R79 22n
2R82 22n
2R84 22n
2R86 22n
2R87 22n
2R88 22n
2R90 22n
2R92 22n
2R95 22n
2R97 22n
2R98 22n
2R09 22n
2R41 22n
2R57 1n0
2R52 1n0
2R51 1n0
2R50 1n0
2R49 1n0
2R48 1n0
2R46 47u 4V
2R99 100n
2R94 100n
2R96 100n
2R00 100n
2R06 100n
2R11 1u0
2R12 1u0
2R53 1u0 16V
2RB5 1u0 16V
2RB6 1u0
8204 000 8422.6
F_15710_079.eps
150905

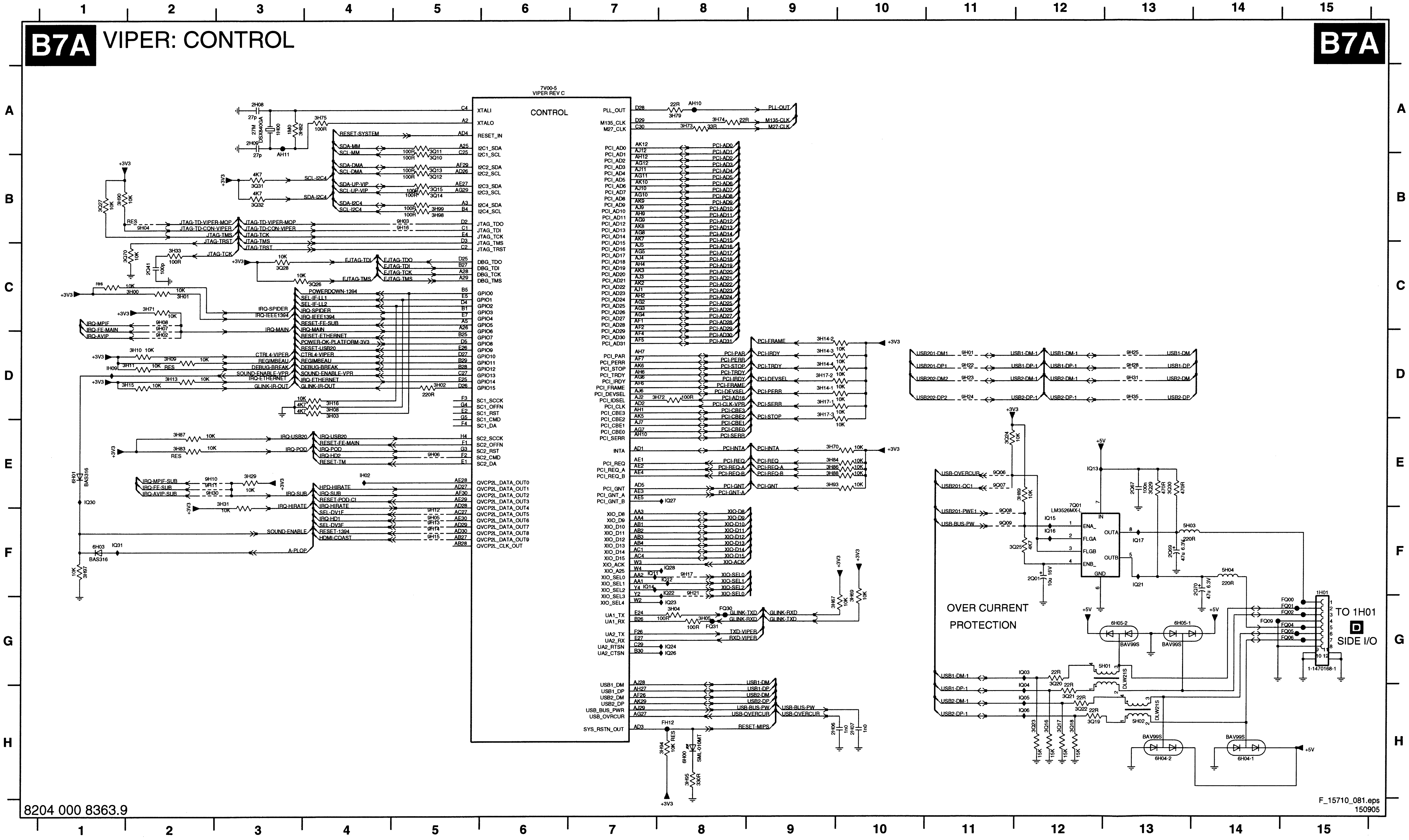
SSB (v3): SPIDER: Debug


B6D
SPIDER: DEBUG
B6D
1
2
3
4
5
6
7
8
9
A
B
C
D
E
7R00-1
SPIDER 2
DEBUG
A12 TST_IN0
B13 TST_IN1
A13 TST_IN2
B14 TST_IN3
A14 TST_IN4
B15 TST_IN5
A15 TST_IN6
A16 TST_IN7
A17 TST_IN8
B17 TST_IN9
AB11 TST_IN10
AC11 TST_IN11
AB10 TST_IN12
AC10 TST_IN13
AB9 TST_IN14
AC9 TST_IN15
AA3 TST_IN16
AB2 TST_IN17
AC1 TST_IN18
AA2 TST_IN19
C22 TST0
B23 TST1
C23 TST2
D22 TST3
AB7 TST_CLK0
AB6 TST_CLK1
AC5 TST_CLK2
Y1 TST_CLK3
TST_OUT0 A18 IR07
TST_OUT1 B18 IR08
TST_OUT2 A19 IR09
TST_OUT3 B19 IR10
TST_OUT4 A20 IR11
TST_OUT5 B20 IR12
TST_OUT6 A21 IR13
TST_OUT7 B21 IR14
TST_OUT8 C21 IR15
TST_OUT9 B22 IR16
TST_OUT10 W2 IR17
TST_OUT11 W1 IR18
TST_OUT12 V2
TST_OUT13 V1
TST_OUT14 U2
TST_OUT15 U1
TST_OUT16 T2
TST_OUT17 T1
TST_OUT18 R2
TST_OUT19 R1
LFMONN_PLL AB1 IR20
LFMONP_PLL AA1 IR21
SCLOUTN_PLL AC4 IR22
SCLOUTP_PLL AB4 IR23
TST_PD P2
TST_SCAN_TUN P1
9R51
9R50
+3V3-SPIDER res 3R80 4K7 IR30
+3V3-SPIDER res 3R81 4K7 IR31
+3V3-SPIDER res 3R82 4K7 IR32
+3V3-SPIDER res 3R83 4K7 IR33
9R20
9R21
9R22
9R23
+3V3-SPIDER 3R90 4K7 RES
9R02
9R03
9R04
9R05
8204 000 8422.6
F_15710_080.eps
150905

3R80	B3
3R81	C3
3R82	C3
3R83	C3
3R90	C4
7R00-1	A6
9R02	D5
9R03	D5
9R04	D5
9R05	D5
9R20	C3
9R21	C3
9R22	C3
9R23	C4
9R50	D7
9R51	D7
IR07	A7
IR08	A7
IR09	B7
IR10	B7
IR11	B7
IR12	B7
IR13	B7
IR14	B7
IR15	B7
IR16	B7
IR17	B7
IR18	B7
IR20	C7
IR21	C7
IR22	C7
IR23	C7
IR30	B3
IR31	C4
IR32	C4
IR33	C4

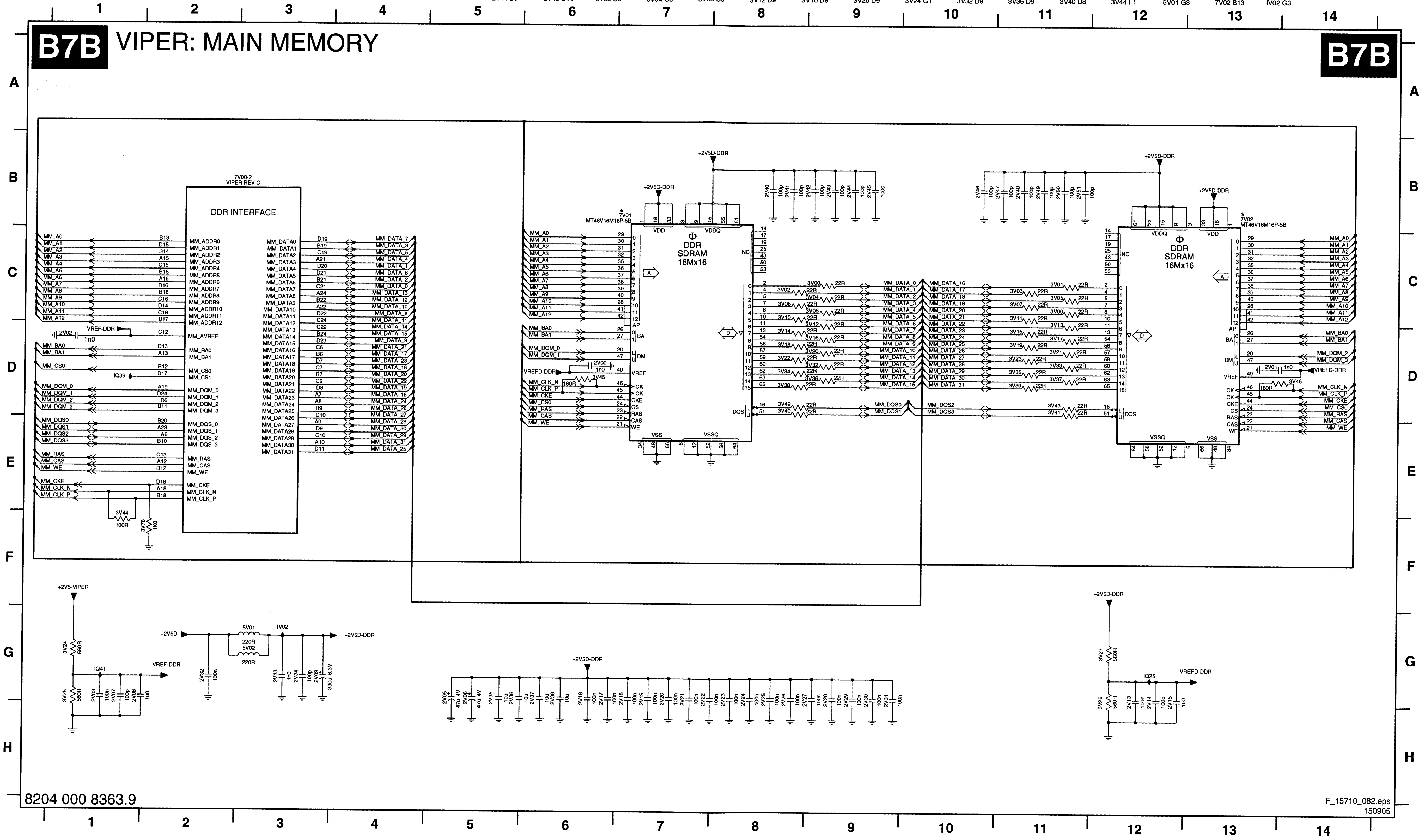
SSB (v3): VIPER: Control

1H00	A3
1H01	F15
2H06	H9
2H07	H10
2H08	A3
2H09	A3
2Q01	F12
2Q41	C2
2Q67	E13
2Q69	F13
2Q70	F14
3H00	C2
3H01	C2
3H02	D5
3H03	D4
3H04	G8
3H05	G8
3H08	D4
3H09	D2
3H10	D2
3H11	D2
3H13	D2
3H14-1	D9
3H14-2	D9
3H14-3	D9
3H14-4	D9
3H15	D2
3H16	D4
3H17-1	D9
3H17-2	D9
3H17-3	D9
3H29	E3
3H31	E3
3H33	C2
3H67	G9
3H69	G10
3H70	E9
3H71	C2
3H72	D8
3H73	A8
3H74	A8
3H75	A4
3H79	A8
3H82	A3
3H83	E2
3H84	E9
3H86	E9
3H87	E2
3H88	E9
3H89	E12
3H90	B1
3H93	E9
3H94	H8
3H95	H8
3H97	F1
3H98	B5
3H99	B5
3Q10	B5
3Q11	A5
3Q12	B5
3Q13	B5
3Q14	B5
3Q15	B5
3Q16	H12
3Q17	H12
3Q18	H12
3Q19	H12
3Q20	G12
3Q21	H12
3Q22	H12
3Q23	H12
3Q24	E11
3Q25	F12
3Q26	C4
3Q27	B1
3Q28	C3
3Q29	E13
3Q30	E13
3Q31	B3
3Q32	B3
3Q70	C1
5H01	H13
5H02	H13
5H03	F13
5H04	F14
6H00	H8
6H01	E1
6H03	F1
6H04-1	H14
6H04-2	H13
6H05-1	G13
6H05-2	G13
7Q01	F12
7V00-5	A6
9H01	D11
9H02	D2
9H03	B5
9H04	B2
9H05	F5
9H06	E5
9H07	C2
9H08	C2
9H10	E2
9H11	E2
9H12	F5
9H13	F5
9H14	F5
9H15	F5
9H16	B5
9H17	F8
9H21	F8
9H22	D11
9H23	D11
9H24	D11
9H25	D13
9H28	D13
9H30	E2
9H31	D13
9H35	D13
9Q06	E11
9Q07	E11
9Q08	F11
9Q09	F11
AH10	A8
AH11	B3
FH12	H8
FQ00	G15
FQ01	G15
FQ02	G15
FQ04	G15
FQ05	G15
FQ06	G15
FQ09	G14
FQ30	G8
FQ31	G8
IH02	E4
IH09	D1
IQ03	G12
IQ04	H12
IQ05	H12
IQ06	H12
IQ11	F7
IQ12	F8
IQ13	E12
IQ14	F7
IQ15	F12
IQ16	F12
IQ17	F13
IQ21	F13
IQ22	F8
IQ23	G8
IQ24	G8
IQ26	G8
IQ27	E8
IQ28	F8
IQ30	E1
IQ31	F1

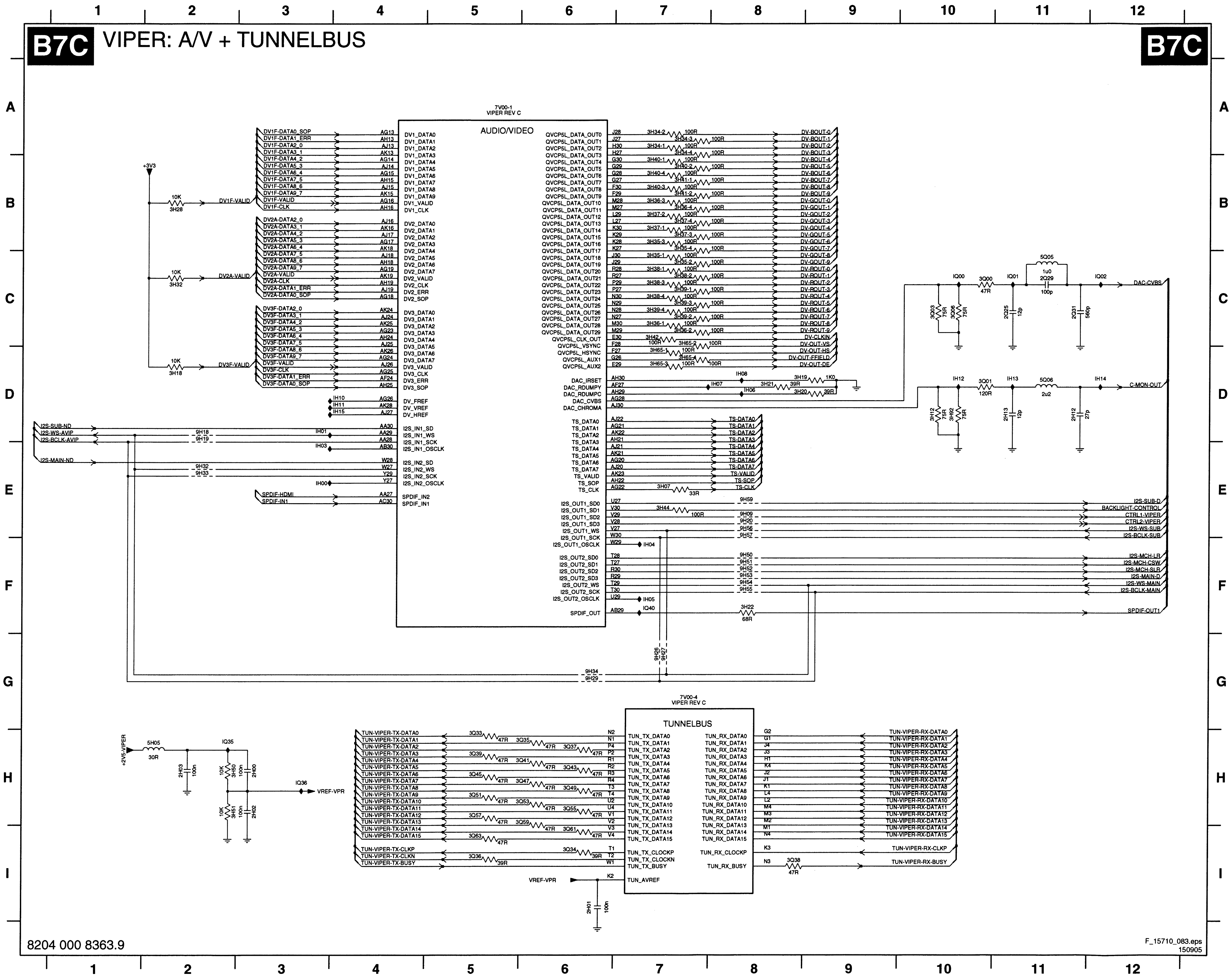

B7A
VIPER: CONTROL
B7A
7V00-5
VIPER REV C
CONTROL
OVER CURRENT
PROTECTION
TO 1H01
D
SIDE I/O
7Q01
LM3526MX-L
1-1470168-1
8204 000 8363.9
F_15710_081.eps
150905

SSB (v3): VIPER: Main Memory

2V00	D6
2V01	D13
2V02	D1
2V03	G1
2V05	G5
2V06	G5
2V07	G1
2V08	G1
2V09	G3
2V13	G12
2V14	G12
2V15	G12
2V16	G6
2V17	G6
2V18	G7
2V19	G7
2V20	G7
2V21	G7
2V22	G7
2V23	G8
2V24	G8
2V25	G8
2V26	G8
2V27	G9
2V28	G9
2V29	G9
2V30	G9
2V31	G9
2V32	G2
2V33	G3
2V34	G3
2V35	G5
2V36	G5
2V37	G6
2V38	G6
2V40	B8
2V41	B8
2V42	B9
2V43	B9
2V44	B9
2V45	B9
2V46	B10
2V47	B11
2V48	B11
2V49	B11
2V50	B11
2V51	B11
3V00	C9
3V01	C11
3V02	C8
3V03	C11
3V04	C9
3V05	C11
3V06	C8
3V07	C11
3V08	C9
3V09	C11
3V10	C8
3V11	C11
3V12	D9
3V13	D11
3V14	D8
3V15	D11
3V16	D9
3V17	D11
3V18	D8
3V19	D11
3V20	D9
3V21	D11
3V22	D8
3V23	D11
3V24	G1
3V25	G1
3V26	G12
3V27	G12
3V32	D9
3V33	D11
3V34	D8
3V35	D11
3V36	D9
3V37	D11
3V38	D8
3V39	D11
3V40	D8
3V41	D11
3V42	D8
3V43	D11
3V44	F1
3V45	D6
3V46	D14
3V78	F2
5V01	G3
5V02	G3
7V00-2	B3
7V01	B7
7V02	B13
IQ25	G12
IQ39	D1
IQ41	G1
IV02	G3


B7B
VIPER: MAIN MEMORY
B7B
7V00-2
VIPER REV C
DDR INTERFACE
7V01
MT46V16M16P-5B
DDR SDRAM 16Mx16
7V02
MT46V16M16P-5B
DDR SDRAM 16Mx16
+2V5D-DDR
+2V5-VIPER
+2V5D
VREF-DDR
VREFD-DDR
5V01
5V02
220R
IV02
IQ41
IQ25
IQ39
8204 000 8363.9
F_15710_082.eps
150905

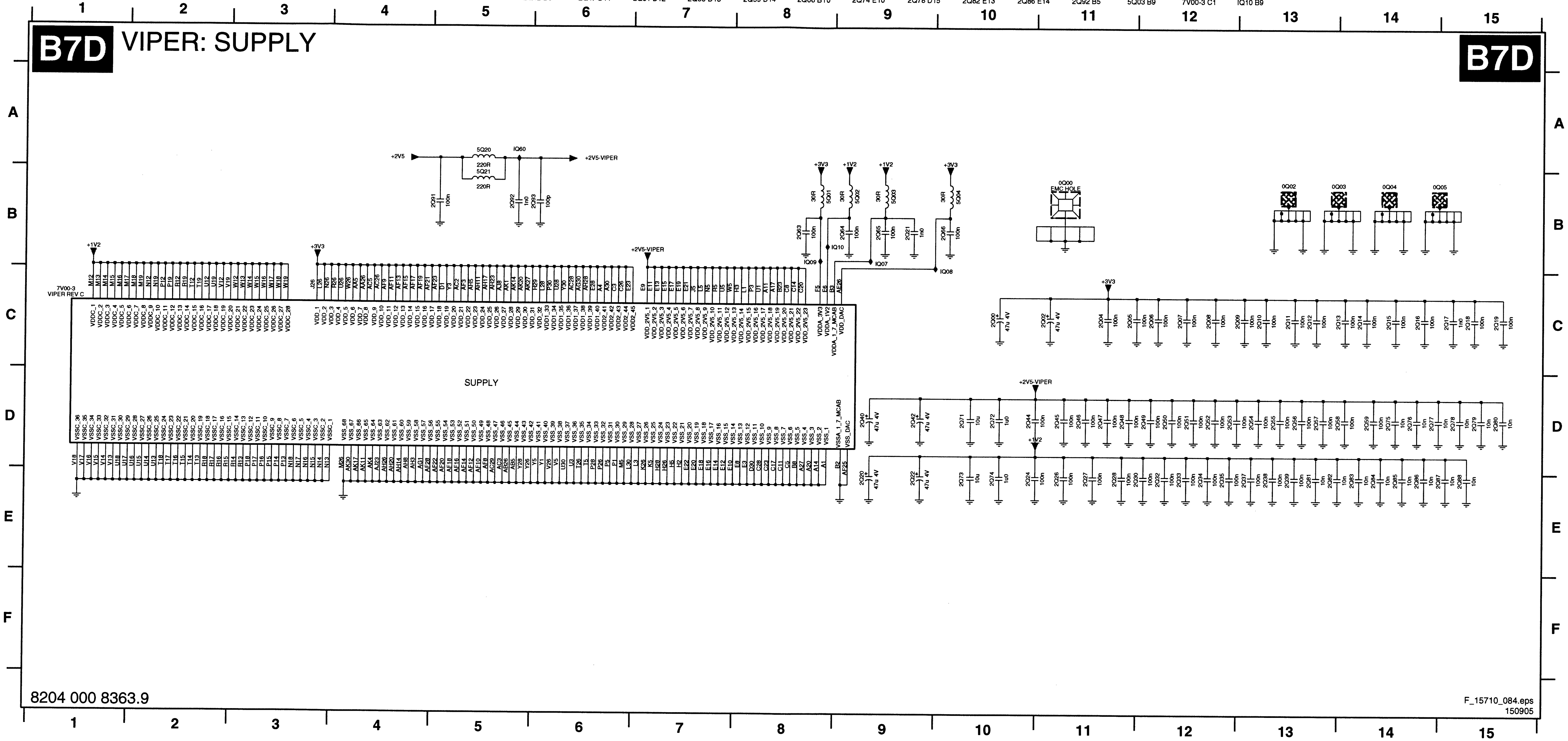
SSB (v3): VIPER: A/V + Tunnel Bus


B7C
VIPER: A/V + TUNNELBUS
B7C
7V00-1
VIPER REV C
AUDIO/VIDEO
DV1_DATA0
DV1_CLK
DV2_DATA0
DV2_SOP
DV3_DATA0
DV3_SOP
DV_FREF
DV_VREF
DV_HREF
I2S_IN1_SD
I2S_IN1_WS
I2S_IN1_SCK
I2S_IN1_OSCLK
I2S_IN2_SD
I2S_IN2_WS
I2S_IN2_SCK
I2S_IN2_OSCLK
SPDIF_IN2
SPDIF_IN1
QVCP5L_DATA_OUT0
QVCP5L_DATA_OUT29
QVCP5L_CLK_OUT
QVCP5L_VSYNC
QVCP5L_HSYNC
QVCP5L_AUX1
QVCP5L_AUX2
DAC_IRSET
DAC_RDUMPY
DAC_RDUMPC
DAC_CVBS
DAC_CHROMA
TS_DATA0
TS_DATA7
TS_VALID
TS_SOP
TS_CLK
I2S_OUT1_SD0
I2S_OUT1_SD1
I2S_OUT1_SD2
I2S_OUT1_SD3
I2S_OUT1_WS
I2S_OUT1_SCK
I2S_OUT1_OSCLK
I2S_OUT2_SD0
I2S_OUT2_SD1
I2S_OUT2_SD2
I2S_OUT2_SD3
I2S_OUT2_WS
I2S_OUT2_SCK
I2S_OUT2_OSCLK
SPDIF_OUT
+3V3
10K 3H28
DV1F-VALID
10K 3H32
DV2A-VALID
10K 3H18
DV3F-VALID
I2S-SUB-ND
I2S-WS-AVIP
I2S-BCLK-AVIP
I2S-MAIN-ND
SPDIF-HDMI
SPDIF-IN1
DV-BOUT-0
DV-GOUT-0
DV-ROUT-0
DV-CLKIN
DV-OUT-VS
DV-OUT-HS
DV-OUT-FFIELD
DV-OUT-DE
5Q05
1u0
2Q29
100p
IQ00
3Q00
47R
IQ01
IQ02
DAC-CVBS
3Q03
3Q06
75R
2Q25
12p
2Q31
560p
IH12
3Q01
120R
IH13
5Q06
2u2
IH14
C-MON-OUT
3H12
3H92
2H13
2H12
27p
3H19
1K0
3H21
39R
3H20
3H07
33R
3H44
100R
TS-DATA0
TS-VALID
TS-SOP
TS-CLK
I2S-SUB-D
BACKLIGHT-CONTROL
CTRL1-VIPER
CTRL2-VIPER
I2S-WS-SUB
I2S-BCLK-SUB
I2S-MCH-LR
I2S-MCH-CSW
I2S-MCH-SLR
I2S-MAIN-D
I2S-WS-MAIN
I2S-BCLK-MAIN
SPDIF-OUT1
3H22
68R
9H34
9H29
9H26
9H27
7V00-4
VIPER REV C
TUNNELBUS
TUN_TX_DATA0
TUN_TX_DATA15
TUN_TX_CLOCKP
TUN_TX_CLOCKN
TUN_TX_BUSY
TUN_AVREF
TUN_RX_DATA0
TUN_RX_DATA15
TUN_RX_CLOCKP
TUN_RX_BUSY
TUN-VIPER-TX-DATA0
TUN-VIPER-TX-DATA15
TUN-VIPER-TX-CLKP
TUN-VIPER-TX-CLKN
TUN-VIPER-TX-BUSY
TUN-VIPER-RX-DATA0
TUN-VIPER-RX-DATA15
TUN-VIPER-RX-CLKP
TUN-VIPER-RX-BUSY
3Q38
47R
39R
+2V5-VIPER
5H05
30R
2H03
100n
IQ35
3H50
10K
2H00
IQ36
VREF-VPR
3H51
2H02
2H01
8204 000 8363.9
F_15710_083.eps
150905
1 2 3 4 5 6 7 8 9 10 11 12
A B C D E F G H I

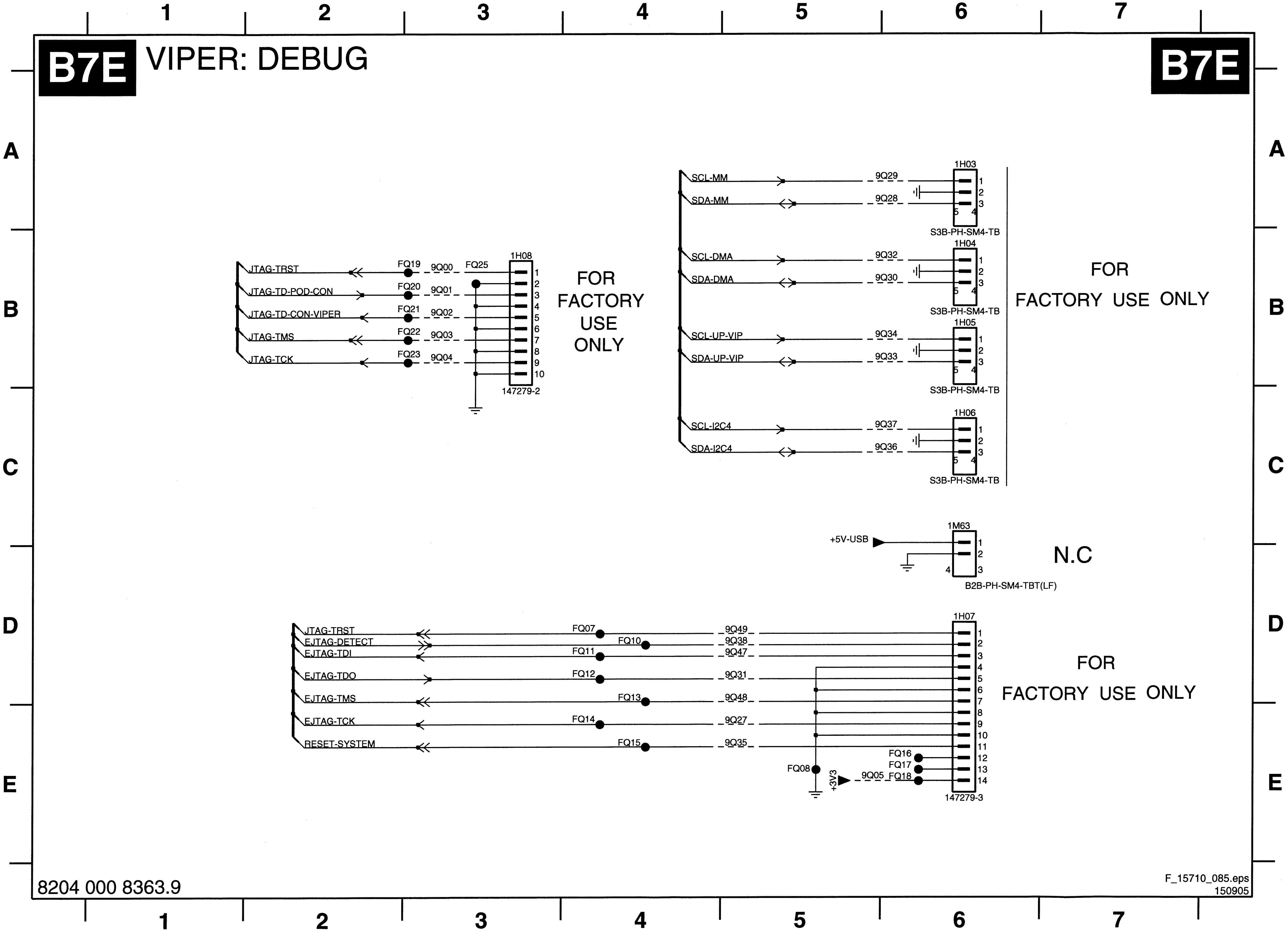
2H00	H3
2H01	I6
2H02	H3
2H03	H2
2H12	D11
2H13	D11
2Q25	C11
2Q29	C11
2Q31	C11
3H07	E7
3H12	D10
3H18	D2
3H19	D8
3H20	D8
3H21	D8
3H22	F8
3H28	B2
3H32	C2
3H34-1	A7
3H34-2	A7
3H34-3	A7
3H34-4	A7
3H35-1	C7
3H35-2	C7
3H35-3	B7
3H35-4	B7
3H36-1	C7
3H36-2	C7
3H36-3	B7
3H36-4	B7
3H37-1	B7
3H37-2	B7
3H37-3	B7
3H37-4	B7
3H38-1	C7
3H38-2	C7
3H38-3	C7
3H38-4	C7
3H39-1	C7
3H39-2	C7
3H39-3	C7
3H39-4	C7
3H40-1	B7
3H40-2	B7
3H40-3	B7
3H40-4	B7
3H41-1	B7
3H41-2	B7
3H42	C7
3H44	E7
3H50	H2
3H51	H2
3H65-1	D7
3H65-2	C7
3H65-3	D7
3H65-4	D7
3H92	D10
3Q00	C10
3Q01	D10
3Q03	C10
3Q06	C10
3Q33	H5
3Q34	I6
3Q35	H6
3Q36	I5
3Q37	H6
3Q38	I8
3Q39	H5
3Q41	H6
3Q43	H6
3Q45	H5
3Q47	H6
3Q49	H6
3Q51	H5
3Q53	H6
3Q55	H6
3Q57	H5
3Q59	H6
3Q61	I6
3Q63	I5
5H05	H2
5Q05	C11
5Q06	D11
7V00-1	A5
7V00-4	G7
9H09	E8
9H18	D2
9H19	D2
9H20	E8
9H26	G7
9H27	G7
9H29	G6
9H32	E2
9H33	E2
9H34	G6
9H50	F8
9H51	F8
9H52	F8
9H53	F8
9H54	F8
9H55	F8
9H56	E8
9H57	E8
9H59	E8
IH00	E3
IH01	D3
IH03	E3
IH04	F7
IH05	F7
IH06	D8
IH07	D8
IH08	D8
IH10	D4
IH11	D4
IH12	D10
IH13	D11
IH14	D12
IH15	D4
IQ00	C10
IQ01	C11
IQ02	C12
IQ35	H2
IQ36	H3
IQ40	F7

SSB (v3): VIPER: Supply

0Q00	B11
0Q02	B13
0Q03	B13
0Q04	B14
0Q05	B14
2Q00	C10
2Q02	C11
2Q04	C11
2Q05	C11
2Q06	C12
2Q07	C12
2Q08	C12
2Q09	C13
2Q10	C13
2Q11	C13
2Q12	C13
2Q13	C14
2Q14	C14
2Q15	C14
2Q16	C14
2Q17	C15
2Q18	C15
2Q19	C15
2Q20	E9
2Q21	B9
2Q22	E9
2Q24	E10
2Q26	E11
2Q27	E11
2Q28	E11
2Q30	E12
2Q32	E12
2Q33	E12
2Q34	E12
2Q35	E12
2Q37	E13
2Q38	E13
2Q39	E13
2Q40	D9
2Q42	D9
2Q44	D10
2Q45	D11
2Q46	D11
2Q47	D11
2Q48	D11
2Q49	D12
2Q50	D12
2Q51	D12
2Q52	D12
2Q53	D12
2Q54	D13
2Q55	D13
2Q56	D13
2Q57	D13
2Q58	D14
2Q59	D14
2Q63	B8
2Q64	B9
2Q65	B9
2Q66	B10
2Q71	D10
2Q72	D10
2Q73	E10
2Q74	E10
2Q75	D14
2Q76	D14
2Q77	D14
2Q78	D15
2Q79	D15
2Q80	D15
2Q81	E13
2Q82	E13
2Q83	E14
2Q84	E14
2Q85	E14
2Q86	E14
2Q87	E15
2Q88	E15
2Q91	B5
2Q92	B5
2Q93	B6
5Q01	B8
5Q02	B9
5Q03	B9
5Q04	B10
5Q20	A5
5Q21	B5
7V00-3	C1
IQ07	B9
IQ08	C10
IQ09	B8
IQ10	B9
IQ60	A5

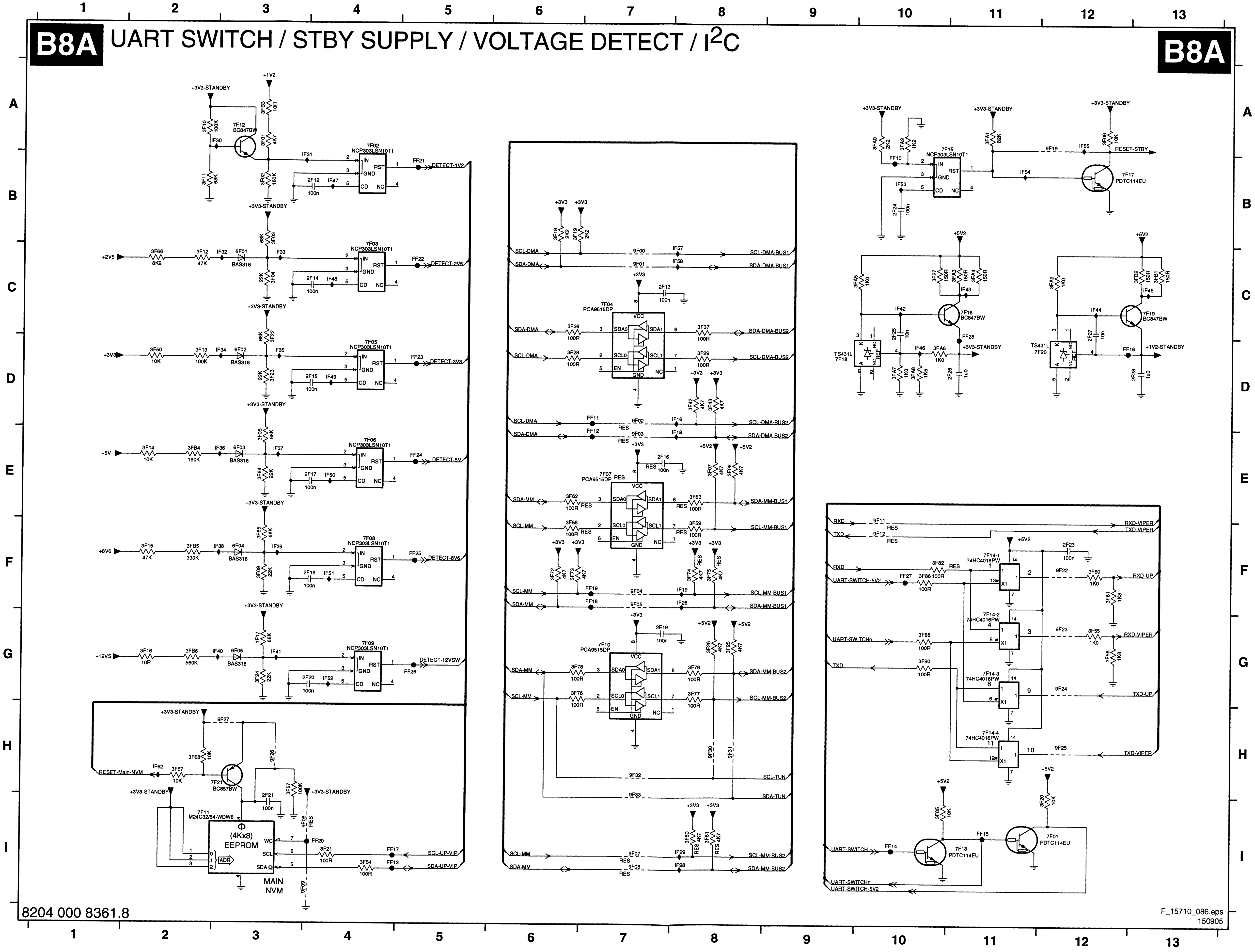

B7D
VIPER: SUPPLY
B7D
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
+2V5
5Q20
220R
5Q21
220R
IQ60
+2V5-VIPER
+1V2
+3V3
+2V5-VIPER
7V00-3
VIPER REV C
SUPPLY
+3V3
+1V2
+1V2
+3V3
30R
5Q01
5Q02
5Q03
5Q04
IQ07
IQ08
IQ09
IQ10
0Q00
EMC HOLE
0Q02
0Q03
0Q04
0Q05
+3V3
+2V5-VIPER
+1V2
8204 000 8363.9
F_15710_084.eps
150905

SSB (v3): VIPER: Debug


B7E
VIPER: DEBUG
B7E
JTAG-TRST
JTAG-TD-POD-CON
JTAG-TD-CON-VIPER
JTAG-TMS
JTAG-TCK
FQ19
FQ20
FQ21
FQ22
FQ23
FQ25
9Q00
9Q01
9Q02
9Q03
9Q04
1H08
147279-2
FOR FACTORY USE ONLY
SCL-MM
SDA-MM
9Q29
9Q28
1H03
S3B-PH-SM4-TB
SCL-DMA
SDA-DMA
9Q32
9Q30
1H04
S3B-PH-SM4-TB
SCL-UP-VIP
SDA-UP-VIP
9Q34
9Q33
1H05
S3B-PH-SM4-TB
SCL-I2C4
SDA-I2C4
9Q37
9Q36
1H06
S3B-PH-SM4-TB
FOR FACTORY USE ONLY
+5V-USB
1M63
B2B-PH-SM4-TBT(LF)
N.C
JTAG-TRST
EJTAG-DETECT
EJTAG-TDI
EJTAG-TDO
EJTAG-TMS
EJTAG-TCK
RESET-SYSTEM
FQ07
FQ10
FQ11
FQ12
FQ13
FQ14
FQ15
9Q49
9Q38
9Q47
9Q31
9Q48
9Q27
9Q35
FQ08
+3V3
9Q05
FQ16
FQ17
FQ18
1H07
147279-3
FOR FACTORY USE ONLY
8204 000 8363.9
F_15710_085.eps
150905

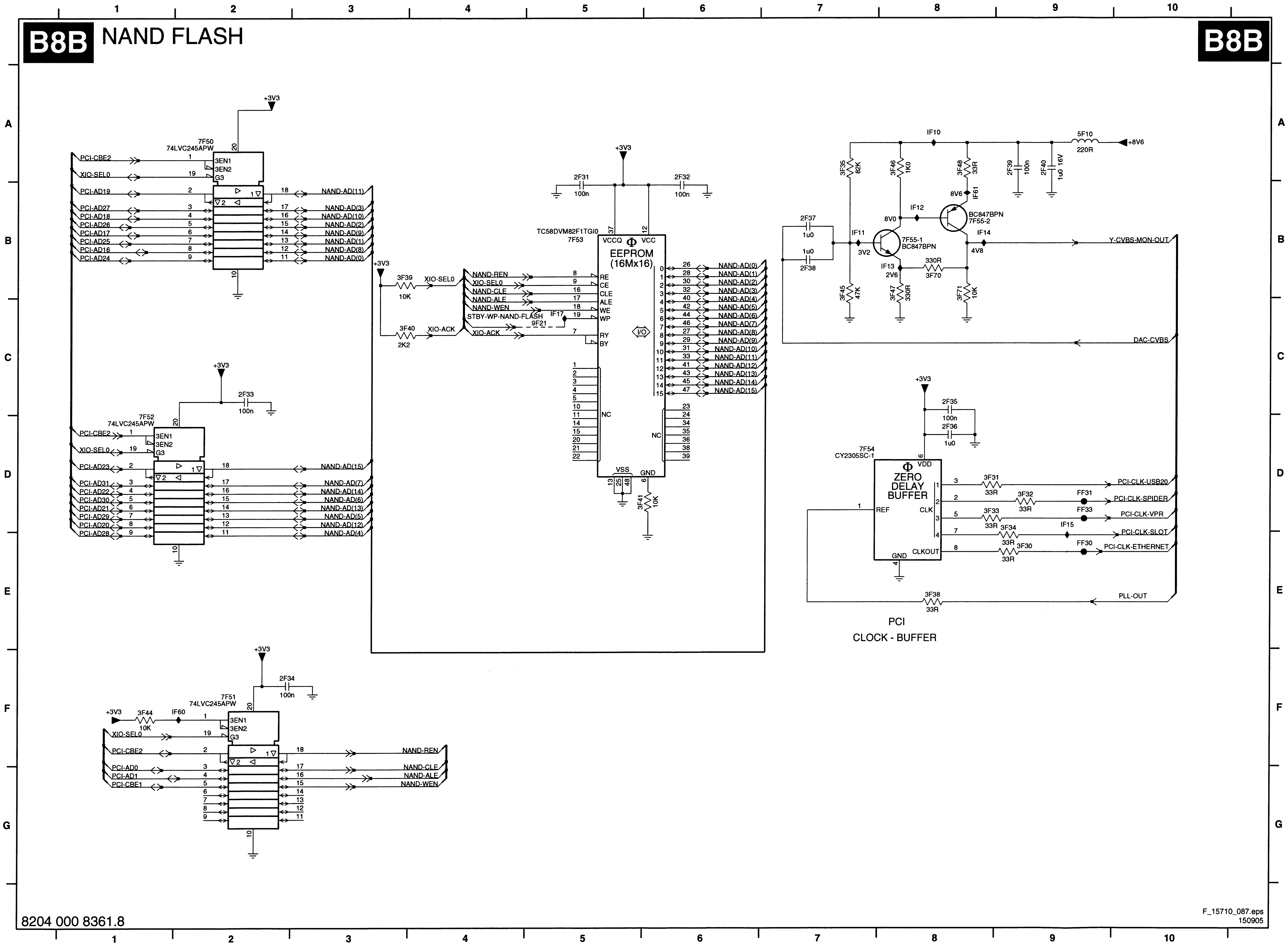
1H03	A6
1H04	B6
1H05	B6
1H06	C6
1H07	D6
1H08	B3
1M63	C6
9Q00	B3
9Q01	B3
9Q02	B3
9Q03	B3
9Q04	B3
9Q05	E5
9Q27	E5
9Q28	A6
9Q29	A6
9Q30	B6
9Q31	D5
9Q32	B6
9Q33	B6
9Q34	B6
9Q35	E5
9Q36	C6
9Q37	C6
9Q38	D5
9Q47	D5
9Q48	D5
9Q49	D5
FQ07	D4
FQ08	E5
FQ10	D4
FQ11	D4
FQ12	D4
FQ13	D4
FQ14	E4
FQ15	E4
FQ16	E6
FQ17	E6
FQ18	E6
FQ19	B3
FQ20	B3
FQ21	B3
FQ22	B3
FQ23	B3
FQ25	B3

SSB (v3): UART Switch / Stby Supply / Voltage Detect / I^{2}C


B8A
UART SWITCH / STBY SUPPLY / VOLTAGE DETECT / I2C
B8A
+3V3-STANDBY
+1V2
7F12 BC847BW
7F02 NCP303LSN10T1
DETECT-1V2
+2V5
7F03 NCP303LSN10T1
DETECT-2V5
+3V3
7F05 NCP303LSN10T1
DETECT-3V3
+5V
7F06 NCP303LSN10T1
DETECT-5V
+8V6
7F08 NCP303LSN10T1
DETECT-8V6
+12VS
7F09 NCP303LSN10T1
DETECT-12VSW
BAS316
RESET-Main-NVM
7F21 BC857BW
7F11 M24C32/64-WDW6
(4Kx8) EEPROM
MAIN NVM
SCL-UP-VIP
SDA-UP-VIP
SCL-DMA
SDA-DMA
SCL-DMA-BUS1
SDA-DMA-BUS1
7F04 PCA9515DP
SDA-DMA-BUS2
SCL-DMA-BUS2
SDA-MM
SCL-MM
7F07 PCA9515DP
SDA-MM-BUS1
SCL-MM-BUS1
7F10 PCA9515DP
SDA-MM-BUS2
SCL-MM-BUS2
SCL-TUN
SDA-TUN
7F15 NCP303LSN10T1
RESET-STBY
7F17 PDTC114EU
7F16 BC847BW
7F18 TS431L
+3V3-STANDBY
7F19 BC847BW
7F20 TS431L
+1V2-STANDBY
RXD
TXD
RXD-VIPER
TXD-VIPER
UART-SWITCH-5V2
UART-SWITCHn
UART-SWITCH
7F14-1 74HC4016PW
7F14-2 74HC4016PW
7F14-3 74HC4016PW
7F14-4 74HC4016PW
RXD-UP
TXD-UP
7F13 PDTC114EU
7F01 PDTC114EU
8204 000 8361.8
F_15710_086.eps
150905

2F12	B4
2F13	C7
2F14	C4
2F15	D4
2F16	E7
2F17	E4
2F18	F4
2F19	G7
2F20	G4
2F21	I3
2F23	F12
2F24	B10
2F25	C10
2F26	D10
2F27	C12
2F28	D13
3F01	A3
3F02	B3
3F03	B3
3F04	C3
3F05	E3
3F06	A12
3F07	E8
3F08	E8
3F09	F3
3F10	A2
3F11	B2
3F12	C2
3F13	D2
3F14	E2
3F15	F2
3F16	G2
3F17	G3
3F18	B6
3F19	B6
3F20	I12
3F21	I4
3F22	D3
3F23	D3
3F24	G3
3F25	G8
3F26	G8
3F27	C10
3F28	D6
3F29	D8
3F36	C6
3F37	C8
3F42	D8
3F43	D8
3F50	D2
3F54	I4
3F55	G12
3F56	G12
3F57	H3
3F58	F6
3F59	F8
3F60	F12
3F61	F12
3F62	E6
3F63	E8
3F64	E3
3F65	F3
3F66	C2
3F67	H2
3F68	H2
3F72	F6
3F73	F6
3F74	F8
3F75	F8
3F76	G6
3F77	G8
3F78	G6
3F79	G8
3F80	I8
3F81	I8
3F82	F10
3F85	I10
3F86	F10
3F88	G10
3F90	G10
3FA0	A10
3FA1	A11
3FA2	A10
3FA3	C11
3FA4	C11
3FA5	C9
3FA6	D10
3FA7	D10
3FA8	D10
3FA9	C12
3FB1	C13
3FB2	C13
3FB3	A3
3FB4	E2
3FB5	F2
3FB6	G2
6F01	C3
6F02	D3
6F03	E3
6F04	F3
6F05	G3
7F01	I12
7F02	A4
7F03	C4
7F04	C7
7F05	D4
7F06	E4
7F07	E7
7F08	F4
7F09	G4
7F10	G7
7F11	I2
7F12	A3
7F13	I11
7F14-1	F11
7F14-2	G11
7F14-3	G11
7F14-4	H11
7F15	A10
7F16	C11
7F17	B12
7F18	D9
7F19	C13
7F20	D11
7F21	H2
9F00	C7
9F01	C7
9F02	D7
9F03	E7
9F04	F7
9F05	F7
9F06	I4
9F07	I7
9F08	I7
9F09	I4
9F11	F10
9F12	F10
9F19	A12
9F22	F12
9F23	G12
9F24	G12
9F25	H12
9F26	H3
9F27	H3
9F30	H8
9F31	H8
9F32	H7
9F33	I7
FF10	B10
FF11	D7
FF12	E7
FF13	I4
FF14	I10
FF15	I11
FF16	D12
FF17	I4
FF18	F7
FF19	F7
FF20	I4
FF21	B5
FF22	C5
FF23	D5
FF24	E5
FF25	F5
FF26	G5
FF27	F10
FF28	C11
IF16	D8
IF18	E8
IF19	F8
IF26	F8
IF28	I8
IF29	I8
IF30	A2
IF31	B3
IF32	C3
IF33	C3
IF34	D3
IF35	D3
IF36	E3
IF37	E3
IF38	F3
IF39	F3
IF40	G3
IF41	G3
IF42	C10
IF43	C11
IF44	C12
IF45	C13
IF46	D10
IF47	B4
IF48	C4
IF49	D4
IF50	E4
IF51	F4
IF52	G4
IF53	B10
IF54	B11
IF55	A12
IF57	C8
IF58	C8
IF62	H2

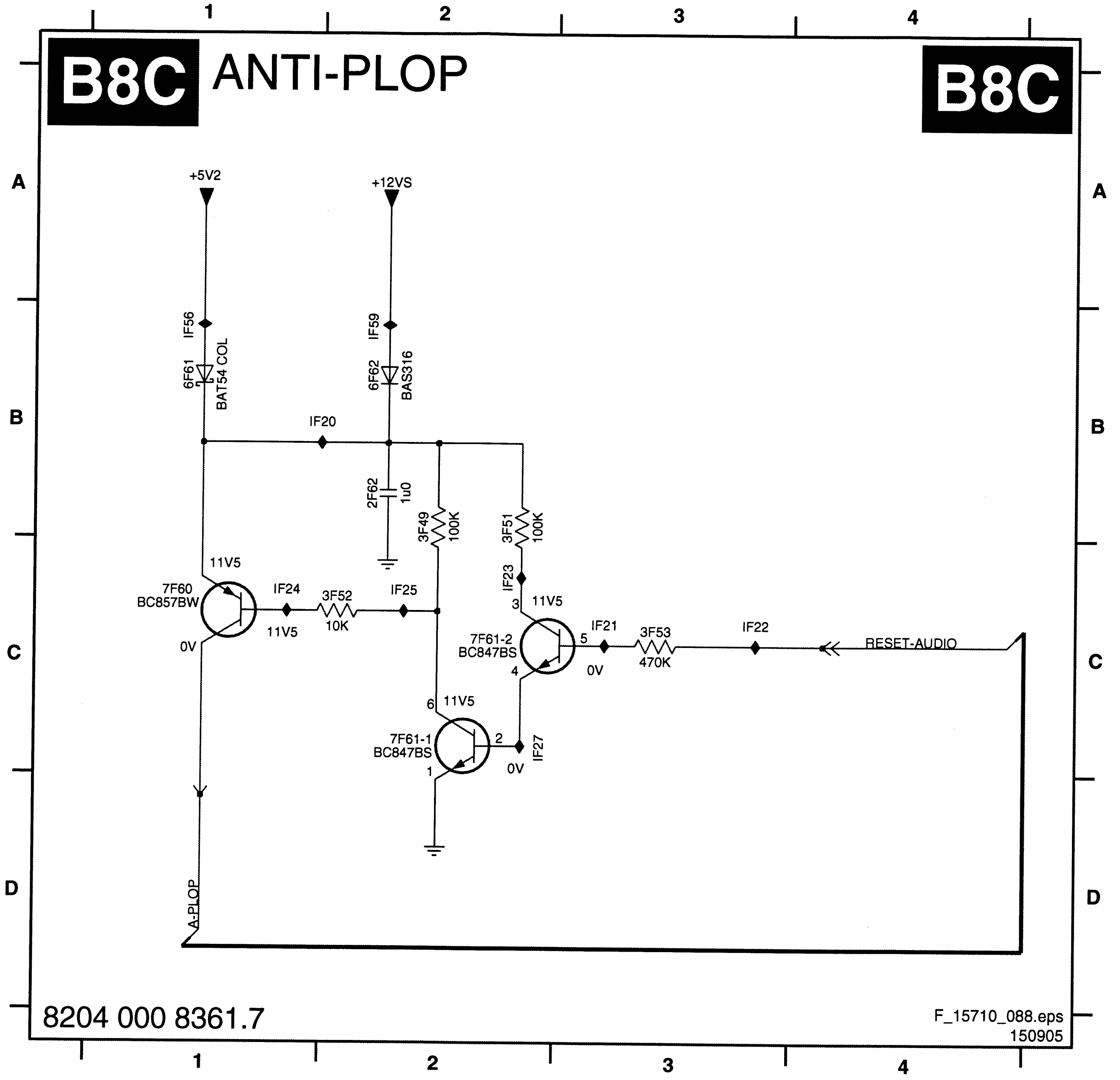
SSB (v3): NAND Flash


B8B
NAND FLASH
B8B
1 2 3 4 5 6 7 8 9 10
A B C D E F G
7F50
74LVC245APW
7F52
74LVC245APW
7F51
74LVC245APW
3EN1
3EN2
G3
+3V3
PCI-CBE2
XIO-SEL0
PCI-AD19
PCI-AD27
PCI-AD18
PCI-AD26
PCI-AD17
PCI-AD25
PCI-AD16
PCI-AD24
PCI-AD23
PCI-AD31
PCI-AD22
PCI-AD30
PCI-AD21
PCI-AD29
PCI-AD20
PCI-AD28
PCI-AD0
PCI-AD1
PCI-CBE1
NAND-AD(0) … NAND-AD(15)
NAND-REN
NAND-CLE
NAND-ALE
NAND-WEN
STBY-WP-NAND-FLASH
XIO-ACK
2F31 100n
2F32 100n
2F33 100n
2F34 100n
3F39 10K
3F40 2K2
3F41 10K
3F44 10K
IF60
IF17
9F21
TC58DVM82F1TGI0
7F53
VCCQ
VCC
EEPROM
(16Mx16)
RE CE CLE ALE WE WP RY BY
I/O
NC
VSS
GND
IF10
5F10 220R
+8V6
3F35 82K
3F46 1K0
3F48 33R
IF61
2F39 100n
2F40 1u0 16V
2F37 1u0
2F38 1u0
IF11
3V2
IF12
8V0
8V6
BC847BPN
7F55-2
7F55-1
BC847BPN
IF14
4V8
IF13
2V6
3F70 330R
3F45 47K
3F47 330R
3F71 10K
Y-CVBS-MON-OUT
DAC-CVBS
7F54
CY2305SC-1
2F35 100n
2F36 1u0
ZERO DELAY BUFFER
VDD
REF
CLK
CLKOUT
GND
3F31 33R
3F32 33R
3F33 33R
3F34 33R
3F30 33R
FF31
FF33
IF15
FF30
PCI-CLK-USB20
PCI-CLK-SPIDER
PCI-CLK-VPR
PCI-CLK-SLOT
PCI-CLK-ETHERNET
3F38 33R
PLL-OUT
PCI
CLOCK - BUFFER
8204 000 8361.8
F_15710_087.eps
150905

2F31	A5
2F32	A6
2F33	C2
2F34	F2
2F35	C8
2F36	D8
2F37	B7
2F38	B7
2F39	A9
2F40	A9
3F30	E9
3F31	D8
3F32	D9
3F33	D8
3F34	D9
3F35	A7
3F38	E8
3F39	B3
3F40	C3
3F41	D5
3F44	F1
3F45	B7
3F46	A8
3F47	B8
3F48	A8
3F70	B8
3F71	B8
5F10	A9
7F50	A2
7F51	F2
7F52	D1
7F53	B5
7F54	D7
7F55-1	B8
7F55-2	B8
9F21	C5
FF30	E9
FF31	D9
FF33	D9
IF10	A8
IF11	B7
IF12	B8
IF13	B8
IF14	B8
IF15	D9
IF17	C5
IF60	F2
IF61	B8

SSB (v3): Anti Plop

2F62 B2
3F49 B2
3F51 B2
3F52 C2
3F53 C3
6F61 B1
6F62 B2
7F60 C1
7F61-1 C2
7F61-2 C2
IF20 B1
IF21 C3
IF22 C3
IF23 C2
IF24 C1
IF25 C2
IF27 C2
IF56 B1
IF59 B2


1
2
3
4
A
B
C
D
B8C
ANTI-PLOP
B8C
+5V2
+12VS
IF56
6F61
BAT54 COL
IF59
6F62
BAS316
IF20
2F62
1u0
3F49
100K
3F51
100K
IF23
3
11V5
7F60
BC857BW
11V5
IF24
3F52
10K
11V5
IF25
0V
7F61-2
BC847BS
5
4
IF21
0V
3F53
470K
IF22
RESET-AUDIO
6
11V5
7F61-1
BC847BS
1
2
0V
IF27
A-PLOP
8204 000 8361.7
F_15710_088.eps
150905

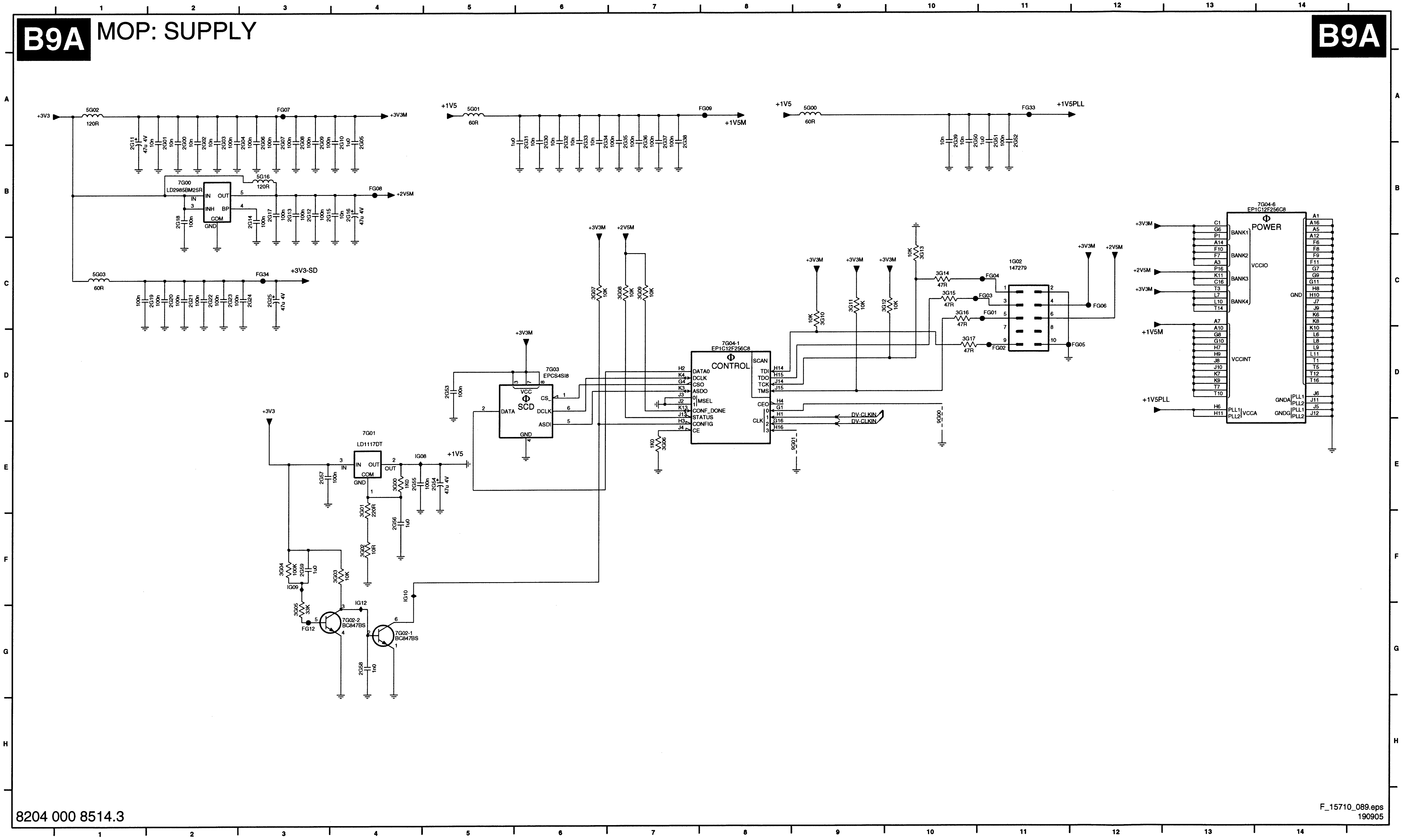
Personal Notes:

E_06532_012.eps
131004

SSB (v3): MOP: Supply

1G02	C11
2G00	A2
2G01	A2
2G02	A2
2G03	A2
2G04	A3
2G05	A4
2G06	A3
2G07	A3
2G08	A3
2G09	A3
2G10	A4
2G11	A1
2G12	B3
2G13	B3
2G14	B3
2G15	B3
2G16	B4
2G17	B3
2G18	B2
2G19	C2
2G20	C2
2G21	C2
2G22	C2
2G23	C2
2G24	C3
2G25	C3
2G30	A6
2G31	A6
2G32	A6
2G33	A6
2G34	A6
2G35	A7
2G36	A7
2G37	A7
2G38	A7
2G39	A10
2G50	A10
2G51	A11
2G52	A11
2G53	D5
2G54	E5
2G55	E4
2G56	F4
2G57	E3
2G58	G4
2G59	F3
3G00	E4
3G01	E4
3G02	F4
3G03	F4
3G04	F3
3G05	G3
3G06	E7
3G07	C6
3G08	C7
3G09	C7
3G10	C9
3G11	C9
3G12	C10
3G13	C10
3G14	C10
3G15	C10
3G16	C10
3G17	D10
5G00	A9
5G01	A5
5G02	A1
5G03	C1
5G16	B3
7G00	B2
7G01	E4
7G02-1	G4
7G02-2	G4
7G03	D6
7G04-1	D8
7G04-6	B14
9G00	D9
9G01	E9
FG01	C11
FG02	D11
FG03	C11
FG04	C11
FG05	D12
FG06	C12
FG07	A3
FG08	B4
FG09	A8
FG12	G3
FG33	A11
FG34	C3
IG08	E4
IG09	F3
IG10	F4
IG12	F4

B9A MOP: SUPPLY **B9A**



1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
+3V3
5G02
120R
FG07
+3V3M
2G11
47u 4V
10n
100n
1u0
7G00
LD2985BM25R
IN
OUT
INH
BP
COM
GND
5G16
120R
FG08
+2V5M
2G18
2G14
2G17
2G13
2G12
2G15
2G16
5G03
60R
FG34
+3V3-SD
2G19
2G20
2G21
2G22
2G23
2G24
2G25
+1V5
5G01
60R
FG09
+1V5M
2G31
2G30
2G32
2G33
2G34
2G35
2G36
2G37
2G38
5G00
60R
FG33
+1V5PLL
2G39
2G50
2G51
2G52
7G03
EPCS4SI8
VCC
SCD
CS_
DCLK
DATA
ASDI
2G53
3G07
10K
3G08
3G09
7G04-1
EP1C12F256C8
CONTROL
DATA0
DCLK
CSO
ASDO
MSEL
CONF_DONE
STATUS
CONFIG
CE
SCAN
TDI
TDO
TCK
TMS
CEO
CLK
DV-CLKIN
3G06
1K0
9G00
9G01
3G10
3G11
3G12
3G13
3G14
47R
3G15
3G16
3G17
FG04
FG03
FG01
FG02
1G02
147279
FG06
FG05
7G04-6
EP1C12F256C8
POWER
BANK1
BANK2
BANK3
BANK4
VCCIO
VCCINT
VCCA
GND
GNDA
GNDG
PLL1
PLL2
7G01
LD1117DT
IG08
3G00
1K0
2G55
2G54
47u 4V
2G57
3G01
220R
3G02
10R
2G56
3G04
100K
2G59
IG09
3G05
33K
FG12
3G03
10K
IG12
IG10
7G02-2
BC847BS
7G02-1
BC847BS
2G58

8204 000 8514.3

F_15710_089.eps
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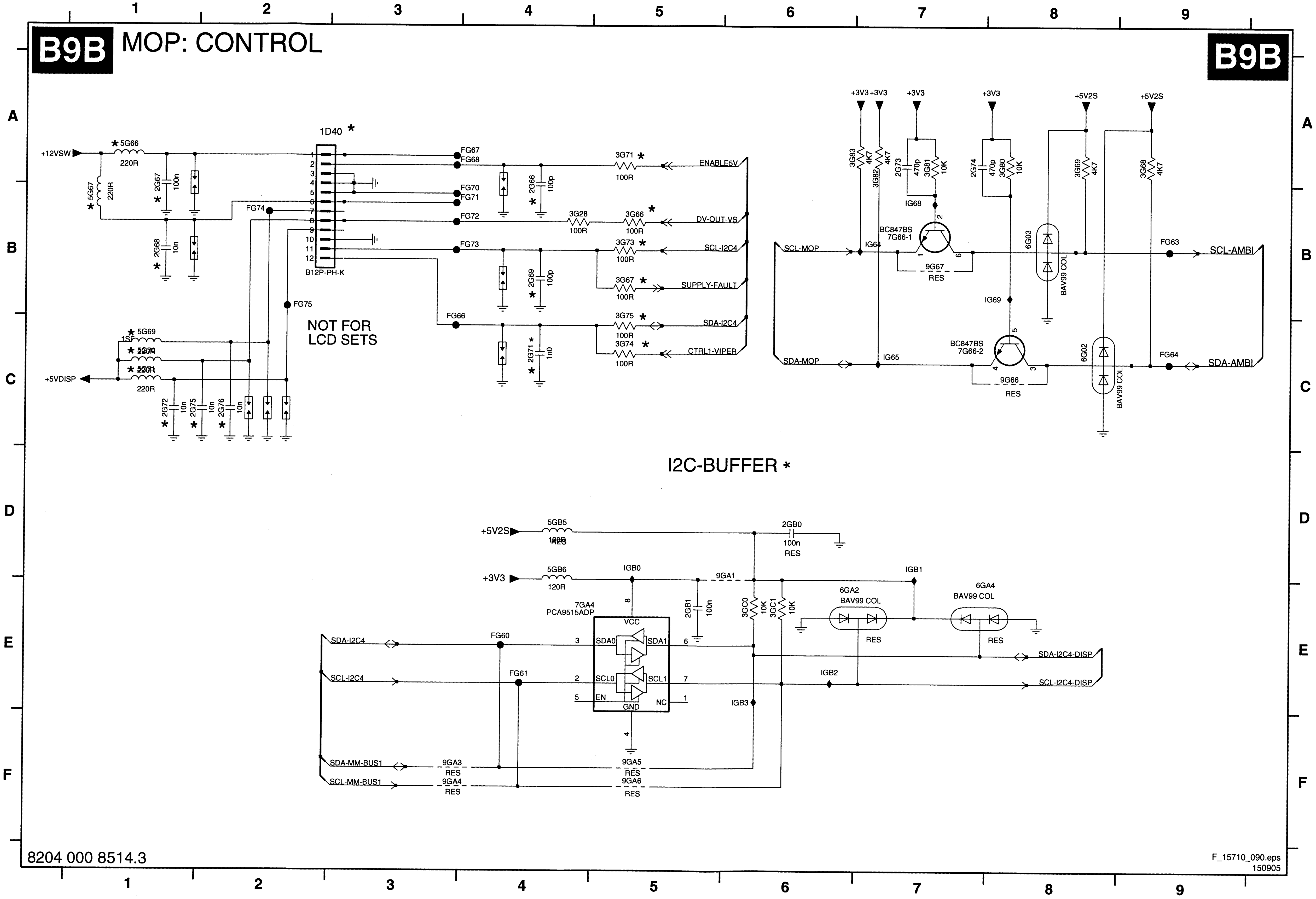
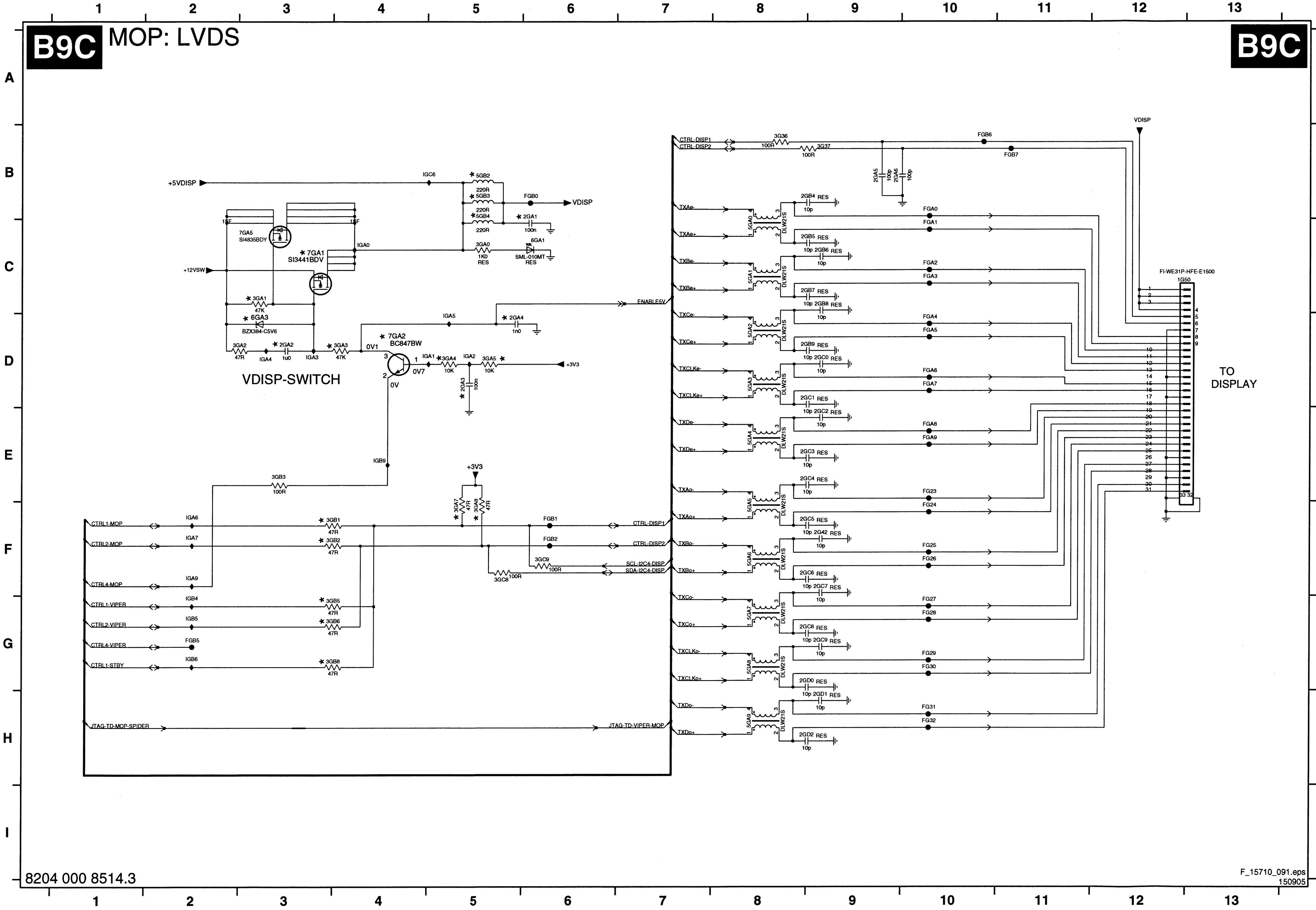
SSB (v3): MOP: Control


B9B
MOP: CONTROL
B9B
1D40 *
B12P-PH-K
+12VSW
5G66 *
220R
5G67 *
220R
2G67 *
100n
2G68 *
10n
FG67
FG68
FG70
FG71
FG72
FG73
FG74
FG75
FG66
2G66 *
100p
2G69 *
100p
2G71 *
1n0
3G71 *
100R
3G28
100R
3G66 *
100R
3G73 *
100R
3G67 *
100R
3G75 *
100R
3G74 *
100R
ENABLE5V
DV-OUT-VS
SCL-I2C4
SUPPLY-FAULT
SDA-I2C4
CTRL1-VIPER
NOT FOR
LCD SETS
5G69 *
5G70 *
5G71 *
220R
+5VDISP
2G72 *
10n
2G75 *
10n
2G76 *
10n
+3V3
+5V2S
3G83
4K7
3G82
4K7
2G73
470p
3G81
10K
2G74
470p
3G80
10K
3G69
4K7
3G68
4K7
IG68
BC847BS
7G66-1
IG64
9G67
RES
6G03
BAV99 COL
FG63
SCL-AMBI
SCL-MOP
IG69
BC847BS
7G66-2
SDA-MOP
IG65
9G66
RES
6G02
BAV99 COL
FG64
SDA-AMBI
I2C-BUFFER *
+5V2S
5GB5
120R
RES
2GB0
100n
RES
+3V3
5GB6
120R
IGB0
9GA1
IGB1
7GA4
PCA9515ADP
2GB1
100n
3GC0
10K
3GC1
10K
6GA2
BAV99 COL
RES
6GA4
BAV99 COL
RES
VCC
SDA0
SDA1
SCL0
SCL1
EN
NC
GND
SDA-I2C4
SCL-I2C4
FG60
FG61
SDA-I2C4-DISP
SCL-I2C4-DISP
IGB2
IGB3
SDA-MM-BUS1
SCL-MM-BUS1
9GA3
RES
9GA4
RES
9GA5
RES
9GA6
RES
8204 000 8514.3
F_15710_090.eps
150905

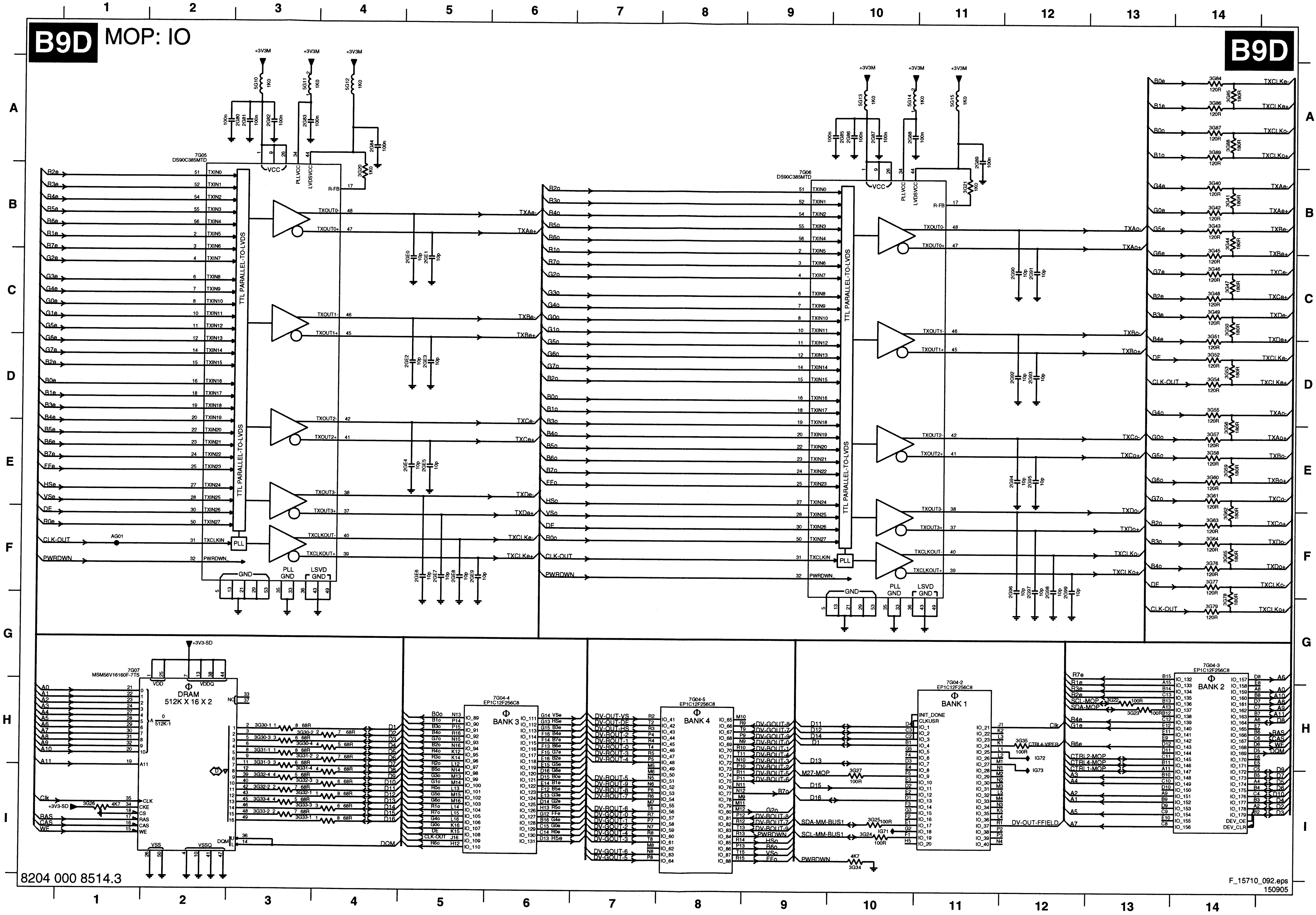
1D40	A2
2G66	A4
2G67	A1
2G68	B1
2G69	B4
2G71	C4
2G72	C1
2G73	A7
2G74	A7
2G75	C1
2G76	C2
2GB0	D6
2GB1	E5
3G28	B4
3G66	B5
3G67	B5
3G68	A9
3G69	A8
3G71	A5
3G73	B5
3G74	C5
3G75	C5
3G80	A8
3G81	A7
3G82	A7
3G83	A6
3GC0	E6
3GC1	E6
5G66	A1
5G67	B1
5G69	C1
5G70	C1
5G71	C1
5GB5	D4
5GB6	D4
6G02	C8
6G03	B8
6GA2	E6
6GA4	E8
7G66-1	B7
7G66-2	C7
7GA4	E5
9G66	C8
9G67	B7
9GA1	D6
9GA3	F3
9GA4	F3
9GA5	F5
9GA6	F5
FG60	E4
FG61	E4
FG63	B9
FG64	C9
FG66	C3
FG67	A4
FG68	A4
FG70	B4
FG71	B4
FG72	B4
FG73	B4
FG74	B2
FG75	B2
IG64	B7
IG65	C7
IG68	B7
IG69	B8
IGB0	D5
IGB1	D7
IGB2	E6
IGB3	E6

SSB (v3): MOP: LVDS


B9C
MOP: LVDS
B9C
1 2 3 4 5 6 7 8 9 10 11 12 13
A B C D E F G H I
+5VDISP
IGC6
5GB2
220R
5GB3
220R
5GB4
220R
FGB0
VDISP
2GA1
100n
3GA0
1K0
RES
6GA1
SML-010MT
RES
1SF
1SF
7GA5
SI4835BDY
7GA1
SI3441BDV
IGA0
+12VSW
3GA1
47K
6GA3
BZX384-C5V6
3GA2
47R
IGA4
2GA2
1u0
IGA3
3GA3
47K
0V1
7GA2
BC847BW
IGA5
2GA4
1n0
ENABLE5V
IGA1
3GA4
10K
IGA2
3GA5
10K
+3V3
0V7
0V
2GA3
100n
VDISP-SWITCH
IGB9
3GB3
100R
+3V3
3GA7
47R
3GA8
47R
CTRL1-MOP
CTRL2-MOP
CTRL4-MOP
CTRL1-VIPER
CTRL2-VIPER
CTRL4-VIPER
CTRL1-STBY
IGA6
IGA7
IGA9
IGB4
IGB5
FGB5
IGB6
3GB1
47R
3GB2
47R
3GB5
47R
3GB6
47R
3GB8
47R
FGB1
FGB2
3GC9
100R
3GC8
100R
CTRL-DISP1
CTRL-DISP2
SCL-I2C4-DISP
SDA-I2C4-DISP
JTAG-TD-MOP-SPIDER
JTAG-TD-VIPER-MOP
CTRL-DISP1
CTRL-DISP2
3G36
100R
3G37
100R
FGB6
FGB7
2GA5
100p
2GA6
100p
VDISP
TXAe-
TXAe+
TXBe-
TXBe+
TXCe-
TXCe+
TXCLKe-
TXCLKe+
TXDe-
TXDe+
TXAo-
TXAo+
TXBo-
TXBo+
TXCo-
TXCo+
TXCLKo-
TXCLKo+
TXDo-
TXDo+
5GA0
5GA1
5GA2
5GA3
5GA4
5GA5
5GA6
5GA7
5GA8
5GA9
DLW21S
2GB4 RES 10p
2GB5 RES 10p
2GB6 RES 10p
2GB7 RES 10p
2GB8 RES 10p
2GB9 RES 10p
2GC0 RES 10p
2GC1 RES 10p
2GC2 RES 10p
2GC3 RES 10p
2GC4 RES 10p
2GC5 RES 10p
2G42 RES 10p
2GC6 RES 10p
2GC7 RES 10p
2GC8 RES 10p
2GC9 RES 10p
2GD0 RES 10p
2GD1 RES 10p
2GD2 RES 10p
FGA0
FGA1
FGA2
FGA3
FGA4
FGA5
FGA6
FGA7
FGA8
FGA9
FG23
FG24
FG25
FG26
FG27
FG28
FG29
FG30
FG31
FG32
FI-WE31P-HFE-E1500
1G50
TO
DISPLAY
8204 000 8514.3
F_15710_091.eps
150905

1G50	C13
2G42	F9
2GA1	B6
2GA2	D3
2GA3	D5
2GA4	D5
2GA5	B9
2GA6	B9
2GB4	B9
2GB5	C9
2GB6	C9
2GB7	C9
2GB8	C9
2GB9	D9
2GC0	D9
2GC1	D9
2GC2	E9
2GC3	E9
2GC4	E9
2GC5	F9
2GC6	F9
2GC7	F9
2GC8	G9
2GC9	G9
2GD0	G9
2GD1	H9
2GD2	H9
3G36	B8
3G37	B9
3GA0	C5
3GA1	C3
3GA2	D3
3GA3	D4
3GA4	D5
3GA5	D5
3GA7	F5
3GA8	F5
3GB1	F4
3GB2	F4
3GB3	E3
3GB5	G4
3GB6	G4
3GB8	G4
3GC8	F5
3GC9	F6
5GA0	C8
5GA1	C8
5GA2	D8
5GA3	D8
5GA4	E8
5GA5	F8
5GA6	F8
5GA7	G8
5GA8	G8
5GA9	H8
5GB2	B5
5GB3	B5
5GB4	B5
6GA1	C6
6GA3	D3
7GA1	C3
7GA2	D4
7GA5	C2
FG23	E10
FG24	F10
FG25	F10
FG26	F10
FG27	G10
FG28	G10
FG29	G10
FG30	G10
FG31	H10
FG32	H10
FGA0	B10
FGA1	C10
FGA2	C10
FGA3	C10
FGA4	D10
FGA5	D10
FGA6	D10
FGA7	D10
FGA8	E10
FGA9	E10
FGB0	B6
FGB1	F6
FGB2	F6
FGB5	G2
FGB6	B10
FGB7	B11
IGA0	C4
IGA1	D5
IGA2	D5
IGA3	D3
IGA4	D3
IGA5	D5
IGA6	F2
IGA7	F2
IGA9	F2
IGB4	G2
IGB5	G2
IGB6	G2
IGB9	E4
IGC6	B5

SSB (v3): MOP: I/O


B9D
MOP: IO
7G05 DS90C385MTD
7G06 DS90C385MTD
TTL PARALLEL-TO-LVDS
PLL
GND
PLL GND
LSVD GND
VCC
PLLVCC
LVDSVCC
R-FB
+3V3M
TXOUT0-
TXOUT0+
TXOUT1-
TXOUT1+
TXOUT2-
TXOUT2+
TXOUT3-
TXOUT3+
TXCLKOUT-
TXCLKOUT+
TXAe-
TXAe+
TXBe-
TXBe+
TXCe-
TXCe+
TXDe-
TXDe+
TXCLKe-
TXCLKe+
TXAo-
TXAo+
TXBo-
TXBo+
TXCo-
TXCo+
TXDo-
TXDo+
TXCLKo-
TXCLKo+
CLK-OUT
PWRDWN
AG01
7G07 MSM56V16160F-7TS
DRAM 512K X 16 X 2
+3V3-SD
VDD
VDDQ
VSS
VSSQ
DQM
RAS
CAS
WE
Clk
7G04-4 EP1C12F256C8 BANK 3
7G04-5 EP1C12F256C8 BANK 4
7G04-2 EP1C12F256C8 BANK 1
7G04-3 EP1C12F256C8 BANK 2
INIT_DONE
CLKUSR
SDA-MM-BUS1
SCL-MM-BUS1
SCL-MOP
SDA-MOP
CTRL2-MOP
CTRL4-MOP
CTRL1-MOP
CTRL4-VIPER
DV-OUT-FFIELD
M27-MOP
IG71
IG72
IG73
DEV_OE
DEV_CLR
8204 000 8514.3
F_15710_092.eps
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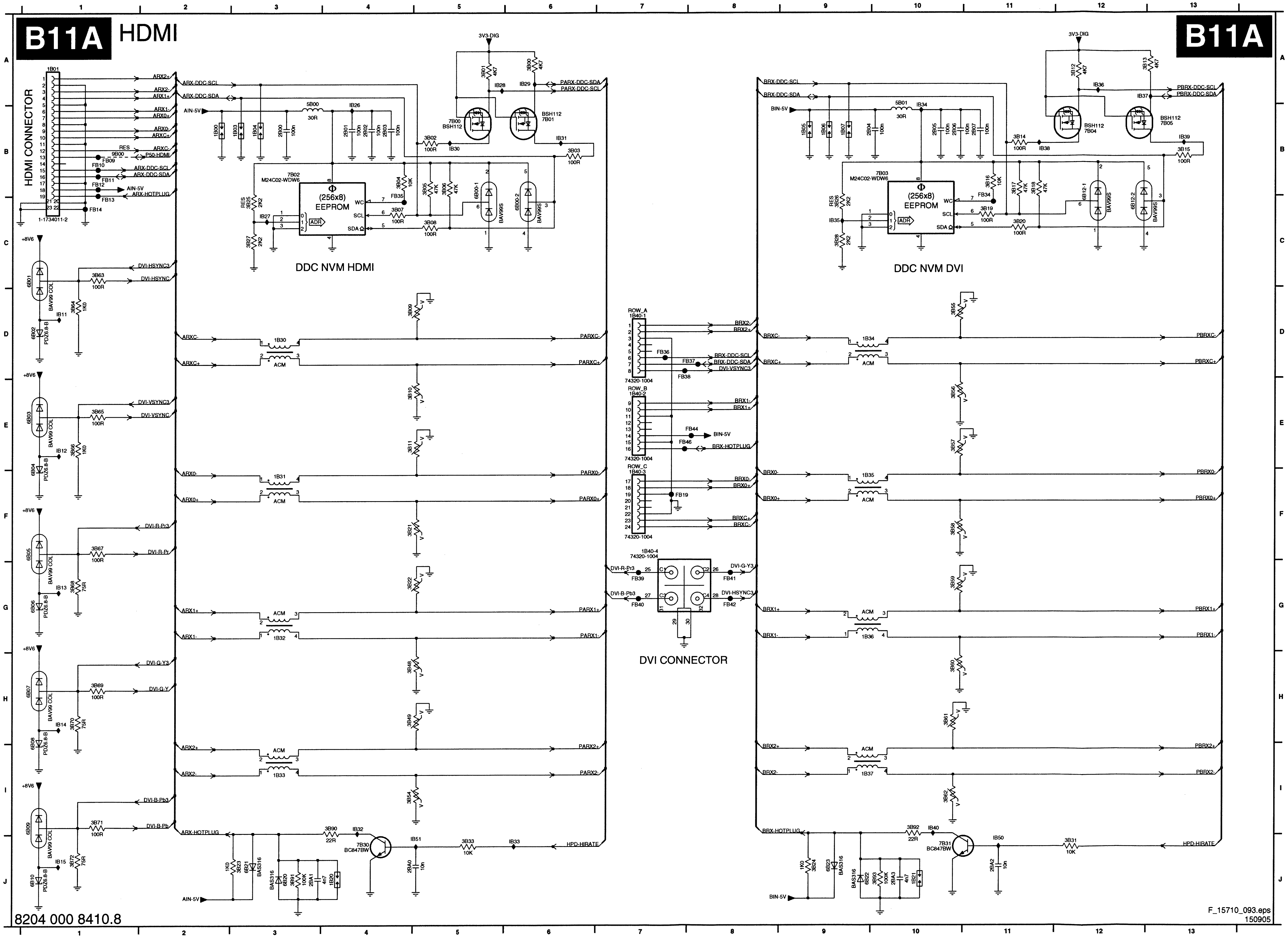
2G80	A3
2G81	A3
2G82	A3
2G83	A3
2G84	A4
2G85	A10
2G86	A10
2G87	A10
2G88	A10
2G89	A11
2G90	C12
2G91	C12
2G92	D12
2G93	D12
2G94	E12
2G95	E12
2G96	F12
2G97	F12
2G98	F12
2G99	F12
2GE0	C5
2GE1	C5
2GE2	D5
2GE3	D5
2GE4	E5
2GE5	E5
2GE6	F5
2GE7	F5
2GE8	F5
2GE9	F5
3G20	B4
3G21	B11
3G22	H13
3G23	H13
3G24	I10
3G25	I10
3G26	I1
3G27	I10
3G30-1	H3
3G30-2	H3
3G30-3	H3
3G30-4	H3
3G31-1	H3
3G31-2	H3
3G31-3	H3
3G31-4	I3
3G32-1	I3
3G32-2	I3
3G32-3	I3
3G32-4	I3
3G33-1	I3
3G33-2	I3
3G33-3	I3
3G33-4	I3
3G34	I10
3G35	H12
3G40	B14
3G41	B14
3G42	B14
3G43	B14
3G44	B14
3G45	B14
3G46	C14
3G47	C14
3G48	C14
3G49	C14
3G50	C14
3G51	C14
3G52	D14
3G53	D14
3G54	D14
3G55	D14
3G56	E14
3G57	E14
3G58	E14
3G59	E14
3G60	E14
3G61	E14
3G62	F14
3G63	F14
3G64	F14
3G65	F14
3G76	F14
3G77	F14
3G78	G14
3G79	G14
3G84	A14
3G85	A14
3G86	A14
3G87	A14
3G88	A14
3G89	A14
5G10	A3
5G11	A3
5G12	A4
5G13	A10
5G14	A10
5G15	A11
7G04-2	H11
7G04-3	G14
7G04-4	H6
7G04-5	H8
7G05	A2
7G06	B9
7G07	G1
AG01	F1
IG71	I10
IG72	H12
IG73	I12

SSB (v3): HDMI


B11A
HDMI
HDMI CONNECTOR
1B01
1-1734011-2
AIN-5V
ARX-HOTPLUG
ARX-DDC-SCL
ARX-DDC-SDA
P50-HDMI
3V3-DIG
7B00 BSH112
7B01 BSH112
7B02 M24C02-WDW6
(256x8) EEPROM
PARX-DDC-SDA
PARX-DDC-SCL
DDC NVM HDMI
BAV99 COL
PDZ6.8-B
DVI-HSYNC
DVI-VSYNC
DVI-R-Pr
DVI-G-Y
DVI-B-Pb
ARXC-
ARXC+
ARX0-
ARX0+
ARX1+
ARX1-
ARX2+
ARX2-
ACM
PARXC-
PARXC+
PARX0-
PARX0+
PARX1+
PARX1-
PARX2+
PARX2-
7B30 BC847BW
HPD-HIRATE
ROW_A 1B40-1
ROW_B 1B40-2
ROW_C 1B40-3
1B40-4
74320-1004
BIN-5V
BRX-HOTPLUG
BRX-DDC-SCL
BRX-DDC-SDA
DVI CONNECTOR
B11A
7B04 BSH112
7B05 BSH112
7B03 M24C02-WDW6
PBRX-DDC-SCL
PBRX-DDC-SDA
DDC NVM DVI
BRXC-
BRXC+
BRX0-
BRX0+
BRX1+
BRX1-
BRX2+
BRX2-
PBRXC-
PBRXC+
PBRX0-
PBRX0+
PBRX1+
PBRX1-
PBRX2+
PBRX2-
7B31 BC847BW
8204 000 8410.8
F_15710_093.eps
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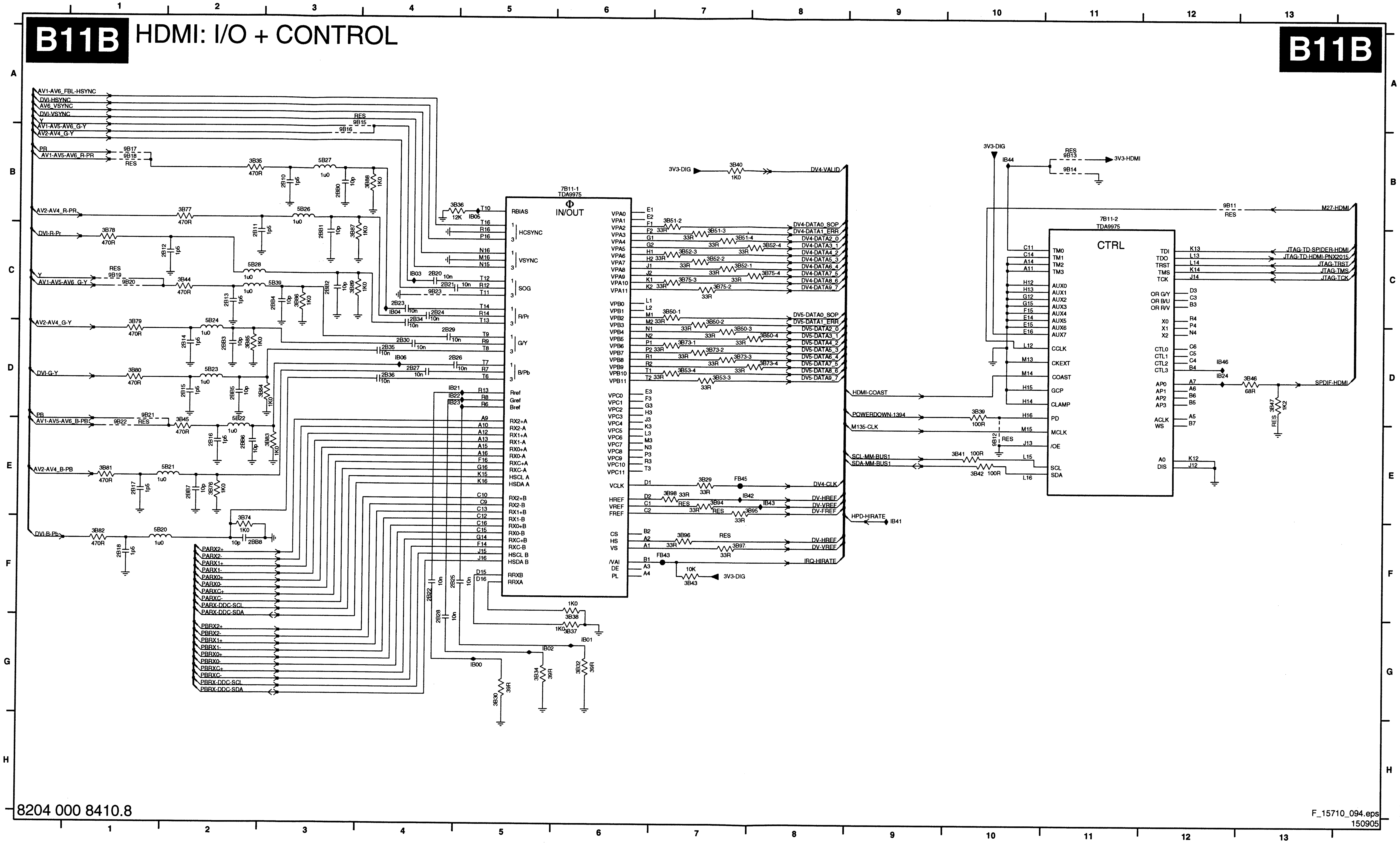
1B00	B2
1B01	A1
1B03	B3
1B04	B3
1B05	B9
1B06	B9
1B07	B9
1B20	J4
1B21	J10
1B30	D3
1B31	F3
1B32	G3
1B33	I3
1B34	D9
1B35	F9
1B36	G9
1B37	I9
1B40-1	D7
1B40-2	E7
1B40-3	F7
1B40-4	F7
2B00	B3
2B01	B4
2B02	B4
2B03	B4
2B04	B9
2B05	B10
2B06	B10
2B07	B11
2BA0	J4
2BA1	J3
2BA2	J11
2BA3	J10
3B00	A6
3B01	A5
3B02	B5
3B03	B6
3B04	B4
3B05	B5
3B06	B5
3B07	C4
3B08	C5
3B09	D4
3B10	E4
3B11	E4
3B12	A12
3B13	A12
3B14	B11
3B15	B13
3B16	B11
3B17	B11
3B18	B11
3B19	C11
3B20	C11
3B21	F4
3B22	G4
3B23	J3
3B24	J9
3B25	C3
3B26	C9
3B27	C3
3B28	C9
3B31	J12
3B33	J5
3B48	H4
3B49	H4
3B54	I4
3B55	D10
3B56	E10
3B57	E10
3B58	F10
3B59	G10
3B60	H10
3B61	H10
3B62	I10
3B63	C1
3B64	D1
3B65	E1
3B66	E1
3B67	F1
3B68	G1
3B69	H1
3B70	H1
3B71	I1
3B72	J1
3B90	I4
3B91	J3
3B92	I10
3B93	J10
5B00	B3
5B01	B10
6B00-1	B5
6B00-2	C6
6B01	C1
6B02	D1
6B03	E1
6B04	E1
6B05	F1
6B06	G1
6B07	H1
6B08	H1
6B09	I1
6B10	J1
6B12-1	B12
6B12-2	C12
6B20	J3
6B21	J3
6B22	J9
6B23	J9
7B00	B5
7B01	B6
7B02	B3
7B03	B10
7B04	B12
7B05	B13
7B30	J4
7B31	J10
9B00	B1
FB09	B1
FB10	B1
FB11	B1
FB12	B1
FB13	C1
FB14	C1
FB19	F7
FB34	C11
FB35	C4
FB36	D7
FB37	D8
FB38	E7
FB39	G7
FB40	G7
FB41	G8
FB42	G8
FB44	E8
FB46	E7
IB11	D1
IB12	E1
IB13	G1
IB14	H1
IB15	J1
IB26	A4
IB27	C3
IB28	A5
IB29	A6
IB30	B5
IB31	B6
IB32	I4
IB33	J6
IB34	B10
IB35	C9
IB36	A12
IB37	A12
IB38	B11
IB39	B13
IB40	I10
IB50	J11
IB51	J5

SSB (v3): HDMI: I/O + Control


B11B
HDMI: I/O + CONTROL
B11B
7B11-1
TDA9975
IN/OUT
7B11-2
TDA9975
CTRL
RBIAS
HCSYNC
VSYNC
SOG
R/Pr
G/Y
B/Pb
Rref
Gref
Bref
AV1-AV6_FBL-HSYNC
DVI-HSYNC
AV6_VSYNC
DVI-VSYNC
AV1-AV5-AV6_G-Y
AV2-AV4_G-Y
PR
AV1-AV5-AV6_R-PR
AV2-AV4_R-PR
DVI-R-Pr
AV2-AV4_G-Y
DVI-G-Y
PB
AV1-AV5-AV6_B-PB
AV2-AV4_B-PB
DVI-B-Pb
PARX2+
PARX2-
PARX1+
PARX1-
PARX0+
PARX0-
PARXC+
PARXC-
PARX-DDC-SCL
PARX-DDC-SDA
PBRX2+
PBRX2-
PBRX1+
PBRX1-
PBRX0+
PBRX0-
PBRXC+
PBRXC-
PBRX-DDC-SCL
PBRX-DDC-SDA
3V3-DIG
DV4-VALID
DV4-DATA0_SOP
DV4-DATA1_ERR
DV4-DATA2_0
DV4-DATA3_1
DV4-DATA4_2
DV4-DATA5_3
DV4-DATA6_4
DV4-DATA7_5
DV4-DATA8_6
DV4-DATA9_7
DV5-DATA0_SOP
DV5-DATA1_ERR
DV5-DATA2_0
DV5-DATA3_1
DV5-DATA4_2
DV5-DATA5_3
DV5-DATA6_4
DV5-DATA7_5
DV5-DATA8_6
DV5-DATA9_7
DV4-CLK
DV-HREF
DV-VREF
DV-FREF
HPD-HIRATE
DV-HREF
DV-VREF
IRQ-HIRATE
HDMI-COAST
POWERDOWN-1394
M135-CLK
SCL-MM-BUS1
SDA-MM-BUS1
3V3-HDMI
M27-HDMI
JTAG-TD-SPIDER-HDMI
JTAG-TD-HDMI-PNX2015
JTAG-TRST
JTAG-TMS
JTAG-TCK
SPDIF-HDMI
8204 000 8410.8
F_15710_094.eps
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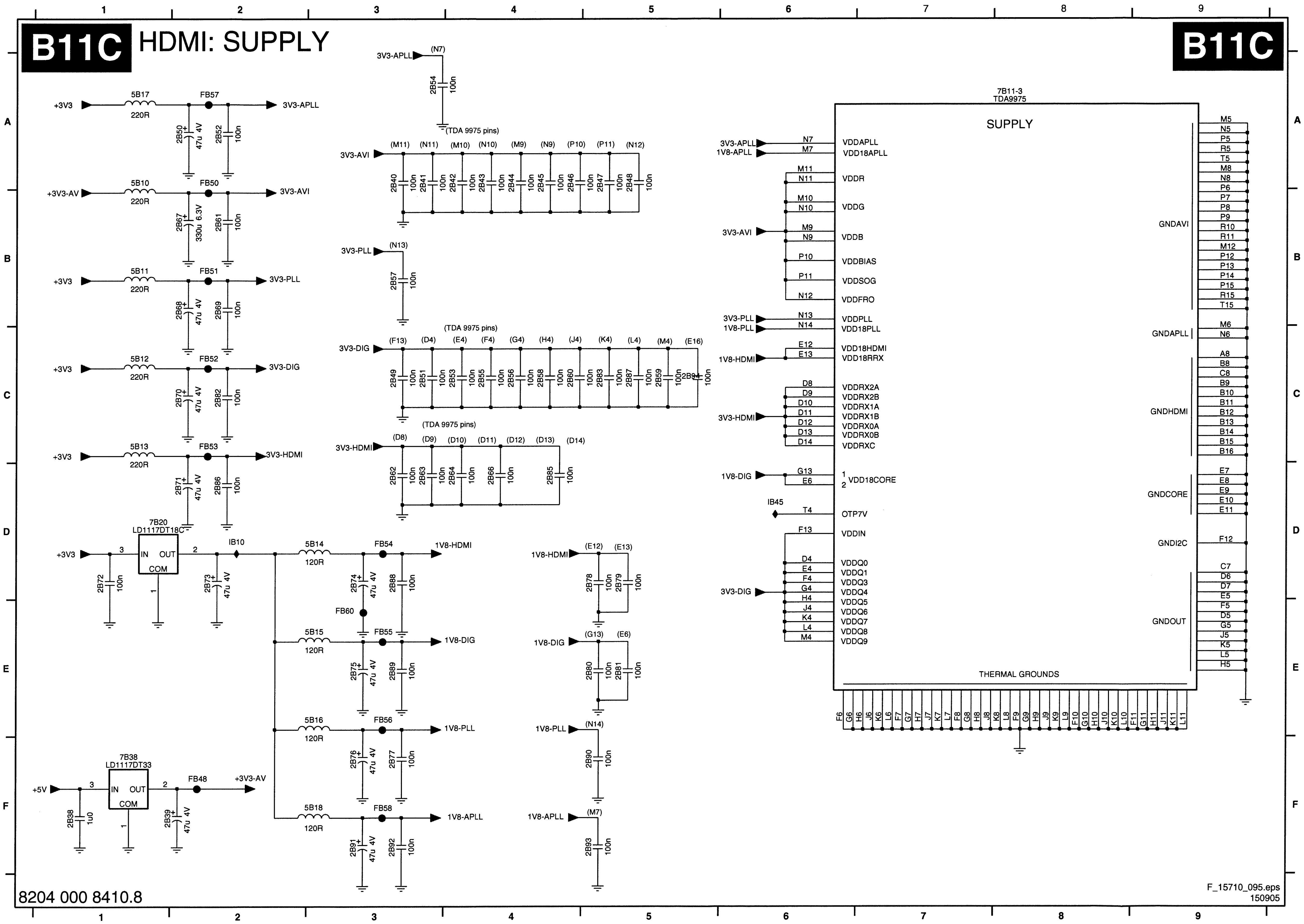
2B10	B3
2B11	C2
2B12	C2
2B13	C2
2B14	D2
2B15	D2
2B16	E2
2B17	E1
2B18	F1
2B20	C4
2B21	C4
2B22	F4
2B23	C4
2B24	C4
2B25	F4
2B26	D4
2B27	D4
2B28	G4
2B29	D4
2B30	D4
2B34	C4
2B35	D4
2B36	D4
2BB0	B3
2BB1	C3
2BB2	C3
2BB3	D2
2BB4	C3
2BB5	D2
2BB6	E2
2BB7	E2
2BB8	F2
3B29	E7
3B30	G5
3B32	G6
3B34	G5
3B35	B2
3B36	B4
3B37	G6
3B38	F6
3B39	D10
3B40	B8
3B41	E10
3B42	E10
3B43	F7
3B44	C2
3B45	E2
3B46	D13
3B47	D13
3B50-1	C7
3B50-2	C7
3B50-3	D7
3B50-4	D8
3B51-2	B7
3B51-3	C7
3B51-4	C7
3B52-1	C7
3B52-2	C7
3B52-3	C7
3B52-4	C8
3B53-3	D7
3B53-4	D7
3B73-1	D7
3B73-2	D7
3B73-3	D7
3B73-4	D8
3B74	F2
3B75-2	C7
3B75-3	C7
3B75-4	C8
3B76	E2
3B77	B2
3B78	C1
3B79	D1
3B80	D1
3B81	E1
3B82	F1
3B83	E3
3B84	D3
3B85	D2
3B86	C3
3B87	C3
3B88	B4
3B89	C3
3B94	E7
3B95	E8
3B96	F7
3B97	F7
3B98	E7
5B20	F1
5B21	E2
5B22	E2
5B23	D2
5B24	D2
5B26	B3
5B27	B3
5B28	C2
5B39	C3
7B11-1	B6
7B11-2	B11
9B11	B12
9B12	E10
9B13	B11
9B14	B11
9B15	A3
9B16	B3
9B17	B1
9B18	B1
9B19	C1
9B20	C1
9B21	D1
9B22	E1
9B23	C4
FB43	F7
FB45	E7
IB00	G5
IB01	G6
IB02	G5
IB03	C4
IB04	C4
IB05	B5
IB06	D4
IB21	D4
IB22	D4
IB23	D4
IB24	D12
IB41	E9
IB42	E7
IB43	E8
IB44	B10
IB46	D12

SSB (v3): HDMI: Supply


B11C
HDMI: SUPPLY
B11C
+3V3
5B17
220R
FB57
3V3-APLL
2B50
47u 4V
2B52
100n
+3V3-AV
5B10
FB50
3V3-AVI
2B67
330u 6.3V
2B61
5B11
FB51
3V3-PLL
2B68
2B69
5B12
FB52
3V3-DIG
2B70
2B82
5B13
FB53
3V3-HDMI
2B71
2B86
7B20
LD1117DT18C
IN
OUT
COM
2B72
2B73
IB10
5B14
120R
FB54
1V8-HDMI
2B74
2B88
FB60
5B15
FB55
1V8-DIG
2B75
2B89
5B16
FB56
1V8-PLL
2B76
2B77
5B18
FB58
1V8-APLL
2B91
2B92
7B38
LD1117DT33
+5V
FB48
+3V3-AV
2B38
1u0
2B39
2B54
(N7)
(TDA 9975 pins)
3V3-PLL
(N13)
2B57
7B11-3
TDA9975
SUPPLY
VDDAPLL
VDD18APLL
VDDR
VDDG
VDDB
VDDBIAS
VDDSOG
VDDFRO
VDDPLL
VDD18PLL
VDD18HDMI
VDD18RRX
VDDRX2A
VDDRX2B
VDDRX1A
VDDRX1B
VDDRX0A
VDDRX0B
VDDRXC
VDD18CORE
OTP7V
IB45
VDDIN
VDDQ0
VDDQ1
VDDQ3
VDDQ4
VDDQ5
VDDQ6
VDDQ7
VDDQ8
VDDQ9
GNDAVI
GNDAPLL
GNDHDMI
GNDCORE
GNDI2C
GNDOUT
THERMAL GROUNDS
2B78
2B79
2B80
2B81
2B90
2B93
8204 000 8410.8
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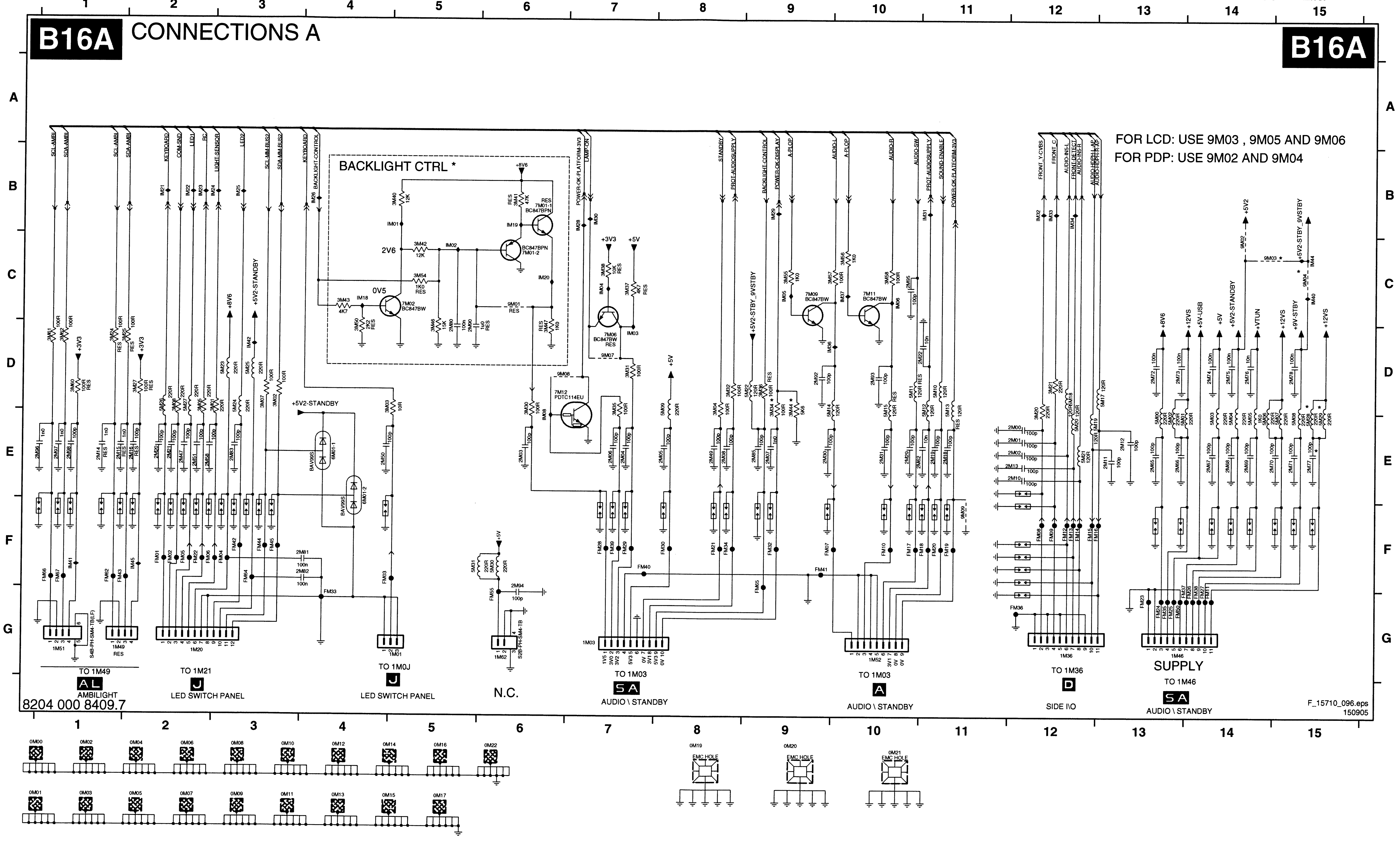
2B38	F1
2B39	F2
2B40	A3
2B41	A3
2B42	A4
2B43	A4
2B44	A4
2B45	A4
2B46	A4
2B47	A5
2B48	A5
2B49	C3
2B50	A2
2B51	C3
2B52	A2
2B53	C4
2B54	A3
2B55	C4
2B56	C4
2B57	B3
2B58	C4
2B59	C5
2B60	C4
2B61	B2
2B62	D3
2B63	D3
2B64	D4
2B66	D4
2B67	B2
2B68	B2
2B69	B2
2B70	C2
2B71	D2
2B72	D1
2B73	D2
2B74	D3
2B75	E3
2B76	F3
2B77	F3
2B78	D5
2B79	D5
2B80	E5
2B81	E5
2B82	C2
2B83	C5
2B85	D4
2B86	D2
2B87	C5
2B88	D3
2B89	E3
2B90	F5
2B91	F3
2B92	F3
2B93	F5
2B94	C5
5B10	A1
5B11	B1
5B12	C1
5B13	C1
5B14	D3
5B15	E3
5B16	E3
5B17	A1
5B18	F3
7B11-3	A8
7B20	D1
7B38	F1
9B32	F2
9B38	E1
FB48	F2
FB50	A2
FB51	B2
FB52	C2
FB53	C2
FB54	D3
FB55	E3
FB56	E3
FB57	A2
FB58	F3
FB60	E3
IB10	D2
IB45	D6

SSB (v3): Connections A

1M01	G5
1M03	G7
1M20	G2
1M36	G12
1M46	G13
1M49	G1
1M51	G1
1M52	G10
1M62	G6
2M00	E12
2M01	E12
2M02	E12
2M03	E6
2M04	E7
2M05	E8
2M06	E7
2M07	E9
2M08	E8
2M10	E12
2M11	E13
2M12	E13
2M13	E12
2M14	E1
2M15	E1
2M16	E2
2M18	E11
2M19	E11
2M20	E2
2M21	E2
2M22	D11
2M29	E10
2M30	E9
2M31	E10
2M47	E2
2M49	E8
2M50	E4
2M51	E2
2M58	E2
2M62	E11
2M65	E13
2M66	E13
2M67	E14
2M68	E14
2M69	E14
2M70	E15
2M71	E15
2M72	D13
2M73	D13
2M74	D14
2M75	D14
2M76	D14
2M77	E15
2M78	D15
2M80	D5
2M81	F4
2M82	F4
2M83	E3
2M85	E9
2M90	D5
2M92	D9
2M93	D10
2M94	F6
2M95	C10
2M96	E1
2M97	E1
2M98	E1
3M01	D3
3M02	D3
3M03	D4
3M04	D8
3M05	D2
3M07	D3
3M08	D2
3M20	D12
3M21	D12
3M24	D1
3M25	D2
3M27	D2
3M30	D6
3M31	D7
3M32	D8
3M34	D9
3M35	D7
3M36	D9
3M37	C7
3M38	C7
3M40	B5
3M41	B6
3M42	C5
3M43	C4
3M44	D9
3M46	D5
3M47	D6
3M50	D4
3M54	C5
3M55	C9
3M56	C10
3M57	C9
3M58	C10
3M60	D1
3M61	D1
3M62	D1
5M00	E13
5M01	E13
5M02	E13
5M03	E14
5M04	E14
5M05	E14
5M06	E14
5M07	E15
5M08	E15
5M09	D8
5M10	D11
5M11	D10
5M12	D11
5M13	D11
5M14	D9
5M15	D10
5M17	D13
5M18	D12
5M19	E13
5M20	E12
5M21	E12
5M22	D9
5M23	D3
5M24	D3
5M25	D3
5M26	D2
5M27	D2
5M28	E15
5M29	E15
5M30	F6
5M31	F5
6M01-1	E4
6M01-2	E4
7M01-1	B6
7M01-2	C6
7M02	C5
7M06	D7
7M09	C9
7M11	C10
7M12	D6
9M01	C6
9M02	C14
9M03	C14
9M04	C15
9M07	D7
9M08	D6
9M09	F11
FM01	F2
FM02	F2
FM03	F4
FM04	F3
FM05	F2
FM06	F2
FM07	F9
FM08	F12
FM09	F12
FM10	F10
FM11	F14
FM12	F12
FM13	F12
FM14	F12
FM15	F12
FM16	F13
FM17	F10
FM18	F11
FM19	F11
FM20	F11
FM21	F8
FM22	F2
FM23	G13
FM24	G13
FM25	G13
FM26	F14
FM27	F14
FM28	F7
FM29	F7
FM30	F8
FM32	F9
FM33	G4
FM34	F8
FM35	G13
FM36	G12
FM37	F14
FM38	F14
FM39	F7
FM40	F7
FM41	F9
FM42	F3
FM43	F1
FM44	F3
FM45	F3
FM50	G13
FM55	G6
FM62	F1
FM64	F3
FM65	F9
FM66	F1
FM67	F1
IM01	B5
IM02	C5
IM03	D7
IM04	C7
IM05	C9
IM06	C10
IM08	E6
IM18	C4
IM19	B6
IM20	C6
IM21	B2
IM22	B2
IM23	B2
IM24	B2
IM25	B3
IM26	B4
IM28	B7
IM29	B9
IM30	B7
IM31	B11
IM32	B12
IM33	B12
IM34	B12
IM36	D9
IM37	C10
IM40	C15
IM41	F1
IM42	D3
IM44	C15
IM45	F2


B16A
CONNECTIONS A
B16A
BACKLIGHT CTRL *
FOR LCD: USE 9M03 , 9M05 AND 9M06
FOR PDP: USE 9M02 AND 9M04
SCL-AMBI
SDA-AMBI
KEYBOARD
COM-SND
LED1
RC
LIGHT-SENSOR
LED2
SCL-MM-BUS2
SDA-MM-BUS2
KEYBOARD
BACKLIGHT-CONTROL
POWER-OK-PLATFORM-3V3
LAMP-ON
STANDBY
PROT-AUDIOSUPPLY
BACKLIGHT-CONTROL
POWER-OK-DISPLAY
A-PLOP
AUDIO-L
A-PLOP
AUDIO-R
AUDIO-SW
PROT-AUDIOSUPPLY
SOUND-ENABLE
POWER-OK-PLATFORM-3V3
FRONT_Y-CVBS
FRONT_C
AUDIO-INS-L
FRONT-DETECT
AUDIO-INS-R
AUDIO-HDPH-L-AP
AUDIO-HDPH-R-AP
+8V6
+5V2-STANDBY
+3V3
+5V
+5V2-STBY_9VSTBY
+12VS
+5V-USB
+VTUN
+9V-STBY
2V6
0V5
BC847BPN
BC847BW
PDTC114EU
BAV99S
TO 1M49
AL
AMBILIGHT
TO 1M21
J
LED SWITCH PANEL
TO 1M0J
J
LED SWITCH PANEL
N.C.
TO 1M03
SA
AUDIO \ STANDBY
TO 1M03
A
AUDIO \ STANDBY
TO 1M36
D
SIDE I\O
SUPPLY
TO 1M46
SA
AUDIO \ STANDBY
EMC HOLE
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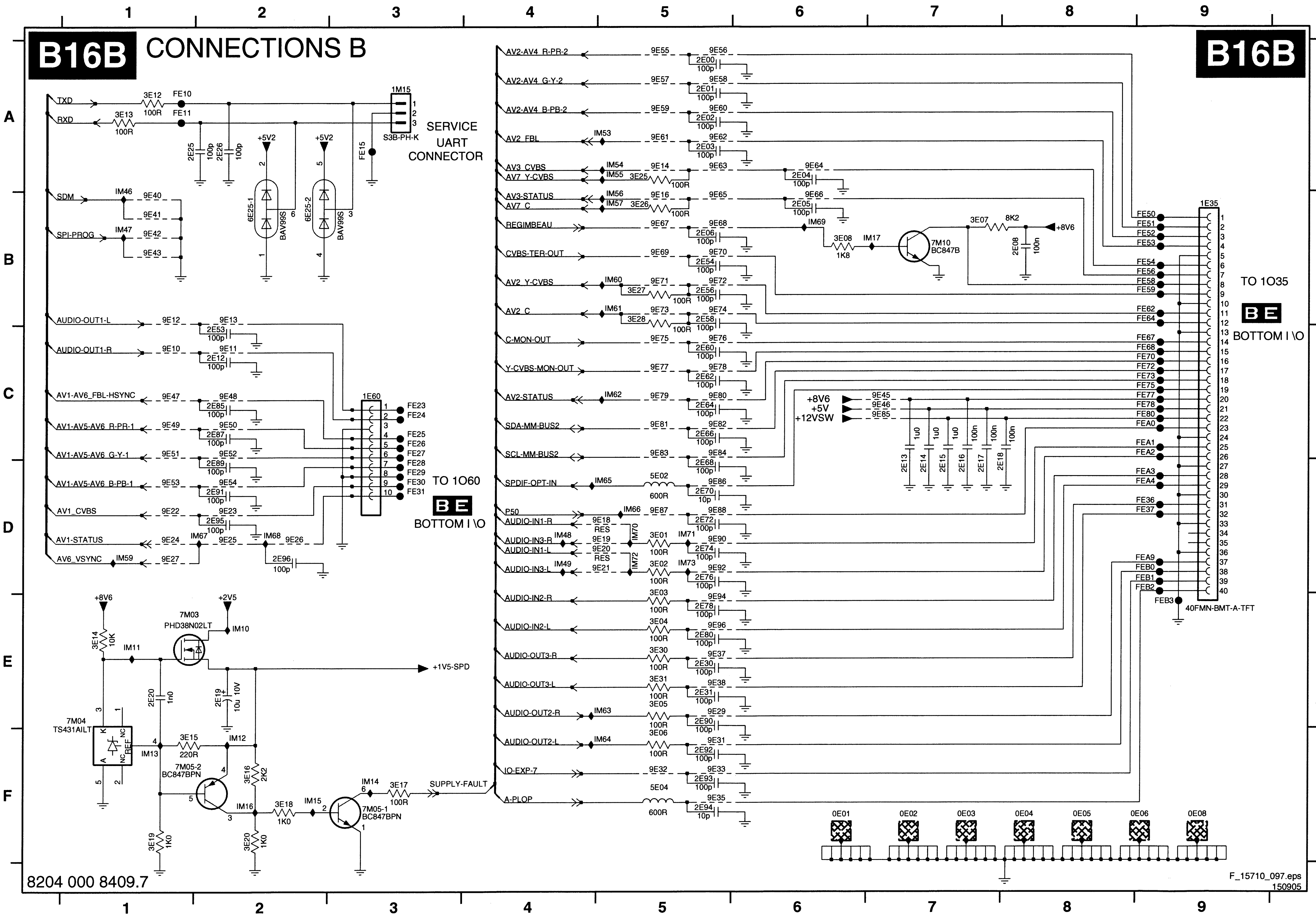
SSB (v3): Connections B


1 2 3 4 5 6 7 8 9
A B C D E F
B16B
CONNECTIONS B
B16B
TXD
RXD
3E12 100R
3E13 100R
FE10
FE11
1M15
S3B-PH-K
SERVICE UART CONNECTOR
2E25 100p
2E26 100p
+5V2
6E25-1 BAV99S
6E25-2 BAV99S
FE15
SDM
SPI-PROG
IM46
IM47
9E40
9E41
9E42
9E43
AUDIO-OUT1-L
AUDIO-OUT1-R
9E12 9E13 2E53 100p
9E10 9E11 2E12 100p
AV1-AV6_FBL-HSYNC
AV1-AV5-AV6_R-PR-1
AV1-AV5-AV6_G-Y-1
AV1-AV5-AV6_B-PB-1
AV1_CVBS
AV1-STATUS
AV6_VSYNC
9E47 9E48 2E85 100p
9E49 9E50 2E87 100p
9E51 9E52 2E89 100p
9E53 9E54 2E91 100p
9E22 9E23 2E95 100p
9E24 IM67 9E25 IM68 9E26
IM59 9E27
2E96 100p
1E60
FE23 FE24 FE25 FE26 FE27 FE28 FE29 FE30 FE31
TO 1O60
B E
BOTTOM I \O
+8V6
+2V5
3E14 10K
IM11
7M03 PHD38N02LT
IM10
+1V5-SPD
2E20 1n0
2E19 10u 10V
7M04 TS431AILT
IM13
3E15 220R
IM12
7M05-2 BC847BPN
3E16 2K2
IM16
3E18 1K0
IM15
7M05-1 BC847BPN
IM14
3E17 100R
SUPPLY-FAULT
3E19 1K0
3E20 1K0
AV2-AV4_R-PR-2
AV2-AV4_G-Y-2
AV2-AV4_B-PB-2
AV2_FBL
AV3_CVBS
AV7_Y-CVBS
AV3-STATUS
AV7_C
REGIMBEAU
CVBS-TER-OUT
AV2_Y-CVBS
AV2_C
C-MON-OUT
Y-CVBS-MON-OUT
AV2-STATUS
SDA-MM-BUS2
SCL-MM-BUS2
SPDIF-OPT-IN
P50
AUDIO-IN1-R
AUDIO-IN3-R
AUDIO-IN1-L
AUDIO-IN3-L
AUDIO-IN2-R
AUDIO-IN2-L
AUDIO-OUT3-R
AUDIO-OUT3-L
AUDIO-OUT2-R
AUDIO-OUT2-L
IO-EXP-7
A-PLOP
IM53 IM54 IM55 IM56 IM57 IM60 IM61 IM62 IM63 IM64 IM65 IM66 IM48 IM49 IM70 IM71 IM72 IM73 IM69 IM17
9E55 9E56 2E00 100p
9E57 9E58 2E01 100p
9E59 9E60 2E02 100p
9E61 9E62 2E03 100p
9E14 9E63 3E25 100R
9E16 9E65 3E26 100R
9E64 2E04 100p
9E66 2E05 100p
9E67 9E68 2E06 100p
9E69 9E70 2E54 100p
9E71 9E72 3E27 100R 2E56 100p
9E73 9E74 3E28 100R 2E58 100p
9E75 9E76 2E60 100p
9E77 9E78 2E62 100p
9E79 9E80 2E64 100p
9E81 9E82 2E66 100p
9E83 9E84 2E68 100p
5E02 600R 9E86 2E70 10p
9E87 9E88 2E72 100p
9E18 RES 9E19 9E20 RES 9E21
3E01 100R 9E90 2E74 100p
3E02 100R 9E92 2E76 100p
3E03 100R 9E94 2E78 100p
3E04 100R 9E96 2E80 100p
3E30 100R 9E37 2E30 100p
3E31 100R 9E38 2E31 100p
3E05 100R 9E29 2E90 100p
3E06 100R 9E31 2E92 100p
9E32 9E33 2E93 100p
5E04 600R 9E35 2E94 10p
3E08 1K8
7M10 BC847B
3E07 8K2
+8V6
2E08 100n
+8V6 +5V +12VSW
9E45 9E46 9E85
2E13 1u0 2E14 1u0 2E15 1u0 2E16 100n 2E17 100n 2E18 100n
1E35
FE50 FE51 FE52 FE53 FE54 FE56 FE58 FE59 FE62 FE64 FE67 FE68 FE70 FE72 FE73 FE75 FE77 FE78 FE80 FEA0 FEA1 FEA2 FEA3 FEA4 FE36 FE37 FEA9 FEB0 FEB1 FEB2 FEB3
40FMN-BMT-A-TFT
TO 1O35
B E
BOTTOM I \O
0E01 0E02 0E03 0E04 0E05 0E06 0E08
8204 000 8409.7
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0E01	F6
0E02	F7
0E03	F7
0E04	F8
0E05	F8
0E06	F9
0E08	F9
1E35	B9
1E60	C3
1M15	A3
2E00	A5
2E01	A5
2E02	A5
2E03	A5
2E04	A6
2E05	B6
2E06	B5
2E08	B8
2E12	C2
2E13	D7
2E14	D7
2E15	D7
2E16	D7
2E17	D7
2E18	D8
2E19	E2
2E20	E1
2E25	A1
2E26	A2
2E30	E5
2E31	E5
2E53	C2
2E54	B5
2E56	B5
2E58	B5
2E60	C5
2E62	C5
2E64	C5
2E66	C5
2E68	D5
2E70	D5
2E72	D5
2E74	D5
2E76	D5
2E78	E5
2E80	E5
2E85	C2
2E87	C2
2E89	D2
2E90	E5
2E91	D2
2E92	F5
2E93	F5
2E94	F5
2E95	D2
2E96	D2
3E01	D5
3E02	D5
3E03	E5
3E04	E5
3E05	E5
3E06	F5
3E07	B7
3E08	B6
3E12	A1
3E13	A1
3E14	E1
3E15	F1
3E16	F2
3E17	F3
3E18	F2
3E19	F1
3E20	F2
3E25	A5
3E26	B5
3E27	B5
3E28	B5
3E30	E5
3E31	E5
5E02	D5
5E04	F5
6E25-1	B2
6E25-2	B2
7M03	E1
7M04	E1
7M05-1	F3
7M05-2	F1
7M10	B7
9E10	C1
9E11	C2
9E12	B1
9E13	B2
9E14	A5
9E16	B5
9E18	D5
9E19	D5
9E20	D5
9E21	D5
9E22	D1
9E23	D2
9E24	D1
9E25	D2
9E26	D2
9E27	D1
9E29	E5
9E31	F5
9E32	F5
9E33	F5
9E35	F5
9E37	E5
9E38	E5
9E40	B1
9E41	B1
9E42	B1
9E43	B1
9E45	C7
9E46	C7
9E47	C1
9E48	C2
9E49	C1
9E50	C2
9E51	C1
9E52	C2
9E53	D1
9E54	D2
9E55	A5
9E56	A5
9E57	A5
9E58	A5
9E59	A5
9E60	A5
9E61	A5
9E62	A5
9E63	A5
9E64	A6
9E65	B5
9E66	B6
9E67	B5
9E68	B5
9E69	B5
9E70	B5
9E71	B5
9E72	B5
9E73	B5
9E74	B5
9E75	C5
9E76	C5
9E77	C5
9E78	C5
9E79	C5
9E80	C5
9E81	C5
9E82	C5
9E83	C5
9E84	C5
9E85	C7
9E86	D5
9E87	D5
9E88	D5
9E90	D5
9E92	D5
9E94	E5
9E96	E5
FE10	A1
FE11	A1
FE15	A3
FE23	C3
FE24	C3
FE25	C3
FE26	C3
FE27	C3
FE28	D3
FE29	D3
FE30	D3
FE31	D3
FE36	D9
FE37	D9
FE50	B9
FE51	B9
FE52	B9
FE53	B9
FE54	B9
FE56	B9
FE58	B9
FE59	B9
FE62	B9
FE64	B9
FE67	C9
FE68	C9
FE70	C9
FE72	C9
FE73	C9
FE75	C9
FE77	C9
FE78	C9
FE80	C9
FEA0	C9
FEA1	C9
FEA2	C9
FEA3	D9
FEA4	D9
FEA9	D9
FEB0	D9
FEB1	D9
FEB2	D9
FEB3	E9
IM10	E2
IM11	E1
IM12	F2
IM13	F1
IM14	F3
IM15	F2
IM16	F2
IM17	B7
IM46	A1
IM47	B1
IM48	D4
IM49	D4
IM53	A5
IM54	A5
IM55	A5
IM56	B5
IM57	B5
IM59	D1
IM60	B5
IM61	B5
IM62	C5
IM63	E5
IM64	F5
IM65	D5
IM66	D5
IM67	D2
IM68	D2
IM69	B6
IM70	D5
IM71	D5
IM72	D5
IM73	D5

SSB: Signal Lines Overview (v3) Part 1

netname	schematic
+12V-DC	B01
+12VS	B01
+12VS	B08a
+12VS	B08c
+12VS	B16a
+12VSW	B01
+12VSW	B04b
+12VSW	B04i
+12VSW	B09b
+12VSW	B09c
+12VSW	B14b
+12VSW	B16b
+12VSW-AIO	B14b
+1V2	B01
+1V2	B05e
+1V2	B07d
+1V2	B08a
+1V2-STANDBY	B05e
+1V2-STANDBY	B08a
+1V5	B09a
+1V5M	B09a
+1V5PLL	B09a
+1V5-SPD	B06c
+1V5-SPD	B16b
+2V5	B01
+2V5	B06b
+2V5	B06c
+2V5	B07d
+2V5	B08a
+2V5	B16b
+2V5D	B01
+2V5D	B07b
+2V5D-DDR	B07b
+2V5-DDR	B06b
+2V5-DDR	B06c
+2V5-DDRPNX	B05d
+2V5-DDRPNX	B05f
+2V5M	B09a
+2V5-N	B05c
+2V5-N	B06a
+2V5-S	B05c
+2V5-S	B05f
+2V5-SPDDR	B06b
+2V5-TUN	B05c
+2V5-TUN	B06a
+2V5-TUN	B06c
+2V5-VIPER	B07b
+2V5-VIPER	B07c
+2V5-VIPER	B07d
+2V8	B01
+3V3	B01
+3V3	B05a
+3V3	B05e
+3V3	B06c
+3V3	B07a
+3V3	B07c
+3V3	B07d
+3V3	B07e
+3V3	B08a
+3V3	B08b
+3V3	B09a
+3V3	B09b
+3V3	B09c
+3V3	B11c
+3V3	B13a
+3V3	B14b
+3V3	B15
+3V3	B16a
+3V3-AIO	B14b
+3V3-AIO	B14c
+3V3-AV	B11c
+3V3-ET-ANA	B15
+3V3-ET-DIG	B15
+3V3M	B09a
+3V3M	B09d
+3V3-SD	B09a
+3V3-SD	B09d
+3V3-SPIDER	B06a
+3V3-SPIDER	B06c
+3V3-SPIDER	B06d
+3V3-STANDBY	B05e
+3V3-STANDBY	B08a
+3V3-STANDBY	B14b
+5V	B01
+5V	B07a
+5V	B08a
+5V	B11c
+5V	B14b
+5V	B16a
+5V	B16b
+5V2	B01
+5V2	B05e
+5V2	B08a
+5V2	B08c
+5V2	B14a
+5V2	B16a
+5V2	B16b
+5V2S	B04b
+5V2S	B04f
+5V2S	B04i
+5V2S	B09b
+5V2-STANDBY	B05e
+5V2-STANDBY	B16a
+5V2-STBY_9VSTBY	B16a
+5V-AIO	B14b
+5V-AIO	B14c
+5VaM	B04c
+5VaS	B04g
+5V-AUD	B04b
+5V-AUD	B04i
+5VbM	B04a
+5VbM	B04c
+5VbMAIN	B04a
+5VbS	B04g
+5VDISP	B09b
+5VDISP	B09c
+5VMPIF-MAIN	B04a
+5VMPIF-MAIN	B04b
+5VMPIF-MAIN	B04c
+5VMPIF-SUB	B04e
+5VMPIF-SUB	B04f
+5VMPIF-SUB	B04g
+5VTUN	B02
+5VTUN	B03
+5VTUNMAIN	B02
+5VTUNSUB	B03
+5V-USB	B07e
+5V-USB	B16a
+8V6	B02
+8V6	B04b
+8V6	B04f
+8V6	B08a
+8V6	B08b
+8V6	B11a
+8V6	B12a
+8V6	B14b
+8V6	B16a
+8V6	B16b
+8VaM	B04c
+8VaS	B04g
+8V-AUD	B04b
+8VMPIF-MAIN	B04b
+8VMPIF-MAIN	B04c
+8VMPIF-SUB	B04f
+8VMPIF-SUB	B04g
+9V-STBY	B16a
+VTUN	B01
+VTUN	B02
+VTUN	B16a
+VTUN1	B02
+VTUN2	B02
+VTUN2	B03
1V8-APLL	B11c
1V8-DIG	B11c
1V8-HDMI	B11c
1V8-PLL	B11c
2NDSIFEXTM	B04c
2NDSIFEXTS	B04g
3V3-APLL	B11c
3V3-AVI	B11c
3V3-DIG	B11a
3V3-DIG	B11b
3V3-DIG	B11c
3V3-HDMI	B11b
3V3-HDMI	B11c
3V3-PLL	B11c
A(0)	B06b
A(1)	B06b
A(10)	B06b
A(11)	B06b
A(2)	B06b
A(3)	B06b
A(4)	B06b
A(5)	B06b
A(6)	B06b
A(7)	B06b
A(8)	B06b
A(9)	B06b
A0	B09d
A1	B09d
A10	B09d
A11	B09d
A2	B09d
A3	B09d
A4	B09d
A5	B09d
A6	B09d
A7	B09d
A8	B09d
A9	B09d
ADAC1	B04i
ADAC1	B05a
ADAC2	B04i
ADAC2	B05a
ADAC4	B04i
ADAC4	B05a
ADAC7	B04i
ADAC7	B05a
ADAC8	B04i
ADAC8	B05a
AGC1	B03
AGC1	B04g
AGC2	B02
AGC2	B04c
AIN-5V	B11a
ALE	B05e
ALE	B05g
A-PLOP	B07a
A-PLOP	B08c
A-PLOP	B12a
A-PLOP	B14a
A-PLOP	B16a
A-PLOP	B16b
AP-SCART1-OUT-L	B12a
AP-SCART1-OUT-R	B12a
ARX0-	B11a
ARX0+	B11a
ARX1-	B11a
ARX1+	B11a
ARX2-	B11a
ARX2+	B11a
ARXC-	B11a
ARXC+	B11a
ARX-DDC-SCL	B11a
ARX-DDC-SDA	B11a
ARX-HOTPLUG	B11a
AUDIO-CENTER-IN	B04d
AUDIO-CENTER-IN	B04h
AUDIO-HDPH-L	B04i
AUDIO-HDPH-L	B14a
AUDIO-HDPH-L-AP	B14a
AUDIO-HDPH-L-AP	B16a
AUDIO-HDPH-R	B04i
AUDIO-HDPH-R	B14a
AUDIO-HDPH-R-AP	B14a
AUDIO-HDPH-R-AP	B16a
AUDIO-IN1-L	B04d
AUDIO-IN1-L	B04h
AUDIO-IN1-L	B12a
AUDIO-IN1-L	B16b
AUDIO-IN1-R	B04d
AUDIO-IN1-R	B04h
AUDIO-IN1-R	B12a
AUDIO-IN1-R	B16b
AUDIO-IN2-L	B04d
AUDIO-IN2-L	B04h
AUDIO-IN2-L	B16b
AUDIO-IN2-R	B04d
AUDIO-IN2-R	B04h
AUDIO-IN2-R	B16b
AUDIO-IN3-L	B04d
AUDIO-IN3-L	B04h
AUDIO-IN3-L	B16b
AUDIO-IN3-R	B04d
AUDIO-IN3-R	B04h
AUDIO-IN3-R	B16b
AUDIO-IN4-L	B04d
AUDIO-IN4-L	B04h
AUDIO-IN4-L	B14b
AUDIO-IN4-R	B04d
AUDIO-IN4-R	B04h
AUDIO-IN4-R	B14b
AUDIO-IN5-L	B04d
AUDIO-IN5-L	B04h
AUDIO-IN5-L	B16a
AUDIO-IN5-R	B04d
AUDIO-IN5-R	B04h
AUDIO-IN5-R	B16a
AUDIO-L	B04i
AUDIO-L	B16a
AUDIO-OUT1-L	B04d
AUDIO-OUT1-L	B12a
AUDIO-OUT1-L	B16b
AUDIO-OUT1-R	B04d
AUDIO-OUT1-R	B12a
AUDIO-OUT1-R	B16b
AUDIO-OUT2-L	B04h
AUDIO-OUT2-L	B16b
AUDIO-OUT2-M-L	B04d
AUDIO-OUT2-M-L	B04h
AUDIO-OUT2-M-R	B04d
AUDIO-OUT2-M-R	B04h
AUDIO-OUT2-R	B04h
AUDIO-OUT2-R	B16b
AUDIO-OUT3-L	B04d
AUDIO-OUT3-L	B16b
AUDIO-OUT3-R	B04d
AUDIO-OUT3-R	B16b
AUDIO-R	B04i
AUDIO-R	B16a
AUDIO-SW	B04i
AUDIO-SW	B16a
AV1_CVBS	B04a
AV1_CVBS	B04e
AV1_CVBS	B12a
AV1_CVBS	B16b
AV1-AV5-AV6_B-PB	B04a
AV1-AV5-AV6_B-PB	B04e
AV1-AV5-AV6_B-PB	B11b
AV1-AV5-AV6_B-PB	B12a
AV1-AV5-AV6_B-PB-1	B12a
AV1-AV5-AV6_B-PB-1	B16b
AV1-AV5-AV6_G-Y	B04a
AV1-AV5-AV6_G-Y	B04e
AV1-AV5-AV6_G-Y	B11b
AV1-AV5-AV6_G-Y	B12a
AV1-AV5-AV6_G-Y-1	B12a
AV1-AV5-AV6_G-Y-1	B16b
AV1-AV5-AV6_R-PR	B04a
AV1-AV5-AV6_R-PR	B04e
AV1-AV5-AV6_R-PR	B11b
AV1-AV5-AV6_R-PR	B12a
AV1-AV5-AV6_R-PR-1	B12a
AV1-AV5-AV6_R-PR-1	B16b
AV1-AV6_FBL-HSYNC	B05a
AV1-AV6_FBL-HSYNC	B11b
AV1-AV6_FBL-HSYNC	B12a
AV1-AV6_FBL-HSYNC	B16b
AV1-STATUS	B05e
AV1-STATUS	B12a
AV1-STATUS	B16b
AV2_C	B04a
AV2_C	B04e
AV2_C	B16b
AV2_FBL	B05a
AV2_FBL	B16b
AV2_Y-CVBS	B04a
AV2_Y-CVBS	B04e
AV2_Y-CVBS	B16b
AV2-AV4_B-PB	B04a
AV2-AV4_B-PB	B04e
AV2-AV4_B-PB	B11b
AV2-AV4_B-PB	B12a
AV2-AV4_B-PB-2	B12a
AV2-AV4_B-PB-2	B16b
AV2-AV4_G-Y	B04a
AV2-AV4_G-Y	B04e
AV2-AV4_G-Y	B11b
AV2-AV4_G-Y	B12a
AV2-AV4_G-Y-2	B12a
AV2-AV4_G-Y-2	B16b
AV2-AV4_R-PR	B04a
AV2-AV4_R-PR	B04e
AV2-AV4_R-PR	B11b
AV2-AV4_R-PR	B12a
AV2-AV4_R-PR-2	B12a
AV2-AV4_R-PR-2	B16b
AV2-STATUS	B05e
AV2-STATUS	B16b
AV3_CVBS	B04a
AV3_CVBS	B04e
AV3_CVBS	B16b
AV3-STATUS	B05e
AV3-STATUS	B16b
AV6_VSYNC	B05a
AV6_VSYNC	B11b
AV6_VSYNC	B16b
AV7_C	B04a
AV7_C	B04e
AV7_C	B16b
AV7_Y-CVBS	B04a
AV7_Y-CVBS	B04e
AV7_Y-CVBS	B16b
B0e	B09d
B0o	B09d
B1e	B09d
B1o	B09d
B2e	B09d
B2o	B09d
B3e	B09d
B3o	B09d
B4e	B09d
B4o	B09d
B5e	B09d
B5o	B09d
B6e	B09d
B6o	B09d
B7e	B09d
B7o	B09d
BA0	B06b
BA1	B06b
BACKLIGHT-CONTROL	B05e
BACKLIGHT-CONTROL	B07c
BACKLIGHT-CONTROL	B16a
BIN-5V	B11a
BRX0-	B11a
BRX0+	B11a
BRX1-	B11a
BRX1+	B11a
BRX2-	B11a
BRX2+	B11a
BRXC-	B11a
BRXC+	B11a
BRX-DDC-SCL	B11a
BRX-DDC-SDA	B11a
BRX-HOTPLUG	B11a
CAS	B06b
CAS	B09d
CK	B06b
CKE	B06b
CKN	B06b
Clk	B09d
CLK-MPIF	B04b
CLK-MPIF	B04f
CLK-MPIF	B05a
CLK-OUT	B09d
C-MON-OUT	B07c
C-MON-OUT	B16b
COM-SND	B05g
COM-SND	B16a
CS	B06b
CTRL1-MOP	B09c
CTRL1-MOP	B09d
CTRL1-STBY	B05e
CTRL1-STBY	B09c
CTRL1-VIPER	B07c
CTRL1-VIPER	B09b
CTRL1-VIPER	B09c
CTRL2-MOP	B09c
CTRL2-MOP	B09d
CTRL2-VIPER	B07c
CTRL2-VIPER	B09c
CTRL3-STBY	B05e
CTRL4-MOP	B09c
CTRL4-MOP	B09d
CTRL4-STBY	B05e
CTRL4-VIPER	B07a
CTRL4-VIPER	B09c
CTRL4-VIPER	B09d
CTRL-DISP1	B09c
CTRL-DISP2	B09c
CVBSOUTIF-MAIN	B04a
CVBSOUTIF-MAIN	B04c
CVBSOUTIF-MAIN	B04e
CVBSOUTIF-SUB	B04a
CVBSOUTIF-SUB	B04e
CVBSOUTIF-SUB	B04g
CVBS-OUT-TER-MAIN	B04a
CVBS-OUT-TER-MAIN	B04c
CVBS-TER-OUT	B04a
CVBS-TER-OUT	B12a
CVBS-TER-OUT	B16b
D1	B09d
D10	B09d
D11	B09d
D12	B09d
D13	B09d
D14	B09d
D15	B09d
D16	B09d
D2	B09d
D3	B09d
D4	B09d
D5	B09d
D6	B09d
D7	B09d
D8	B09d
D9	B09d
DAC-CVBS	B07c
DAC-CVBS	B08b
DATA1N-MAIN	B04a
DATA1N-MAIN	B05a
DATA1N-SUB	B04e
DATA1N-SUB	B05a
DATA1P-MAIN	B04a
DATA1P-MAIN	B05a
DATA1P-SUB	B04e
DATA1P-SUB	B05a
DATA2N-MAIN	B04a
DATA2N-MAIN	B05a
DATA2N-SUB	B04e
DATA2N-SUB	B05a
DATA2P-MAIN	B04a
DATA2P-MAIN	B05a
DATA2P-SUB	B04e
DATA2P-SUB	B05a
DATA3N-MAIN	B04a
DATA3N-MAIN	B05a
DATA3N-SUB	B04e
DATA3N-SUB	B05a
DATA3P-MAIN	B04a
DATA3P-MAIN	B05a
DATA3P-SUB	B04e
DATA3P-SUB	B05a
DE	B09d
DEBUG-BREAK	B05e
DEBUG-BREAK	B07a
DETECT-12VSW	B05g
DETECT-12VSW	B08a
DETECT-1V2	B05g
DETECT-1V2	B08a
DETECT-2V5	B05g
DETECT-2V5	B08a
DETECT-3V3	B05g
DETECT-3V3	B08a
DETECT-5V	B05g
DETECT-5V	B08a
DETECT-8V6	B05g
DETECT-8V6	B08a
DQ(0)	B06b
DQ(1)	B06b
DQ(10)	B06b
DQ(11)	B06b
DQ(12)	B06b
DQ(13)	B06b
DQ(14)	B06b
DQ(15)	B06b
DQ(2)	B06b
DQ(3)	B06b
DQ(4)	B06b
DQ(5)	B06b
DQ(6)	B06b
DQ(7)	B06b
DQ(8)	B06b
DQ(9)	B06b
DQM	B09d
DSNDL1	B04d
DSNDL1	B05a
DSNDL2	B04d
DSNDL2	B05a
DSNDR1	B04d
DSNDR1	B05a
DSNDR2	B04d
DSNDR2	B05a
DV1F-CLK	B05b
DV1F-CLK	B07c
DV1F-DATA0_SOP	B05b
DV1F-DATA0_SOP	B07c
DV1F-DATA1_ERR	B05b
DV1F-DATA1_ERR	B07c
DV1F-DATA2_0	B05b
DV1F-DATA2_0	B07c
DV1F-DATA3_1	B05b
DV1F-DATA3_1	B07c
DV1F-DATA4_2	B05b
DV1F-DATA4_2	B07c
DV1F-DATA5_3	B05b
DV1F-DATA5_3	B07c
DV1F-DATA6_4	B05b
DV1F-DATA6_4	B07c
DV1F-DATA7_5	B05b
DV1F-DATA7_5	B07c
DV1F-DATA8_6	B05b
DV1F-DATA8_6	B07c
DV1F-DATA9_7	B05b
DV1F-DATA9_7	B07c
DV1F-VALID	B05b
DV1F-VALID	B07c
DV2A-CLK	B05b
DV2A-CLK	B07c
DV2A-DATA0_SOP	B05b
DV2A-DATA0_SOP	B07c
DV2A-DATA1_ERR	B05b
DV2A-DATA1_ERR	B07c
DV2A-DATA2_0	B05b
DV2A-DATA2_0	B07c
DV2A-DATA3_1	B05b
DV2A-DATA3_1	B07c
DV2A-DATA4_2	B05b
DV2A-DATA4_2	B07c
DV2A-DATA5_3	B05b
DV2A-DATA5_3	B07c
DV2A-DATA6_4	B05b
DV2A-DATA6_4	B07c
DV2A-DATA7_5	B05b
DV2A-DATA7_5	B07c
DV2A-DATA8_6	B05b
DV2A-DATA8_6	B07c
DV2A-DATA9_7	B05b
DV2A-DATA9_7	B07c
DV2A-VALID	B05b
DV2A-VALID	B07c
DV3F-CLK	B05b
DV3F-CLK	B07c
DV3F-DATA0_SOP	B05b
DV3F-DATA0_SOP	B07c
DV3F-DATA1_ERR	B05b
DV3F-DATA1_ERR	B07c
DV3F-DATA2_0	B05b
DV3F-DATA2_0	B07c
DV3F-DATA3_1	B05b
DV3F-DATA3_1	B07c
DV3F-DATA4_2	B05b
DV3F-DATA4_2	B07c
DV3F-DATA5_3	B05b
DV3F-DATA5_3	B07c
DV3F-DATA6_4	B05b
DV3F-DATA6_4	B07c
DV3F-DATA7_5	B05b
DV3F-DATA7_5	B07c
DV3F-DATA8_6	B05b
DV3F-DATA8_6	B07c
DV3F-DATA9_7	B05b
DV3F-DATA9_7	B07c
DV3F-VALID	B05b
DV3F-VALID	B07c
DV4-CLK	B05b
DV4-CLK	B11b
DV4-DATA0_SOP	B05b
DV4-DATA0_SOP	B11b
DV4-DATA1_ERR	B05b
DV4-DATA1_ERR	B11b
DV4-DATA2_0	B05b
DV4-DATA2_0	B11b
DV4-DATA3_1	B05b
DV4-DATA3_1	B11b
DV4-DATA4_2	B05b
DV4-DATA4_2	B11b
DV4-DATA5_3	B05b
DV4-DATA5_3	B11b
DV4-DATA6_4	B05b
DV4-DATA6_4	B11b
DV4-DATA7_5	B05b
DV4-DATA7_5	B11b
DV4-DATA8_6	B05b
DV4-DATA8_6	B11b
DV4-DATA9_7	B05b
DV4-DATA9_7	B11b
DV4-VALID	B05b
DV4-VALID	B11b
DV5-DATA0_SOP	B05b
DV5-DATA0_SOP	B11b
DV5-DATA1_ERR	B05b
DV5-DATA1_ERR	B11b
DV5-DATA2_0	B05b
DV5-DATA2_0	B11b
DV5-DATA3_1	B05b
DV5-DATA3_1	B11b
DV5-DATA4_2	B05b
DV5-DATA4_2	B11b
DV5-DATA5_3	B05b
DV5-DATA5_3	B11b
DV5-DATA6_4	B05b
DV5-DATA6_4	B11b
DV5-DATA7_5	B05b
DV5-DATA7_5	B11b
DV5-DATA8_6	B05b
DV5-DATA8_6	B11b
DV5-DATA9_7	B05b
DV5-DATA9_7	B11b
DV-BOUT-0	B07c
DV-BOUT-0	B09d
DV-BOUT-1	B07c
DV-BOUT-1	B09d
DV-BOUT-2	B07c
DV-BOUT-2	B09d
DV-BOUT-3	B07c
DV-BOUT-3	B09d
DV-BOUT-4	B07c
DV-BOUT-4	B09d
DV-BOUT-5	B07c
DV-BOUT-5	B09d
DV-BOUT-6	B07c
DV-BOUT-6	B09d
DV-BOUT-7	B07c
DV-BOUT-7	B09d
DV-BOUT-8	B07c
DV-BOUT-8	B09d
DV-BOUT-9	B07c
DV-BOUT-9	B09d
DV-CLKIN	B07c
DV-CLKIN	B09a
DV-FREF	B05b
DV-FREF	B11b
DV-GOUT-0	B07c
DV-GOUT-0	B09d
DV-GOUT-1	B07c
DV-GOUT-1	B09d
DV-GOUT-2	B07c
DV-GOUT-2	B09d
DV-GOUT-3	B07c
DV-GOUT-3	B09d
DV-GOUT-4	B07c
DV-GOUT-4	B09d
DV-GOUT-5	B07c
DV-GOUT-5	B09d
DV-GOUT-6	B07c
DV-GOUT-6	B09d
DV-GOUT-7	B07c
DV-GOUT-7	B09d
DV-GOUT-8	B07c
DV-GOUT-8	B09d
DV-GOUT-9	B07c
DV-GOUT-9	B09d
DV-HREF	B05b
DV-HREF	B11b
DVI-B-Pb	B11a
DVI-B-Pb	B11b
DVI-B-Pb3	B11a
DVI-G-Y	B11a
DVI-G-Y	B11b
DVI-G-Y3	B11a
DVI-HSYNC	B11a
DVI-HSYNC	B11b
DVI-HSYNC3	B11a
DVI-R-Pr	B11a
DVI-R-Pr	B11b
DVI-R-Pr3	B11a
DVI-VSYNC	B11a
DVI-VSYNC	B11b
DVI-VSYNC3	B11a
DV-OUT-DE	B07c
DV-OUT-DE	B09d
DV-OUT-FFIELD	B07c
DV-OUT-FFIELD	B09d
DV-OUT-HS	B07c
DV-OUT-HS	B09d
DV-OUT-VS	B07c
DV-OUT-VS	B09b
DV-OUT-VS	B09d
DV-ROUT-0	B07c
DV-ROUT-0	B09d
DV-ROUT-1	B07c
DV-ROUT-1	B09d
DV-ROUT-2	B07c
DV-ROUT-2	B09d
DV-ROUT-3	B07c
DV-ROUT-3	B09d
DV-ROUT-4	B07c
DV-ROUT-4	B09d
DV-ROUT-5	B07c
DV-ROUT-5	B09d
DV-ROUT-6	B07c
DV-ROUT-6	B09d
DV-ROUT-7	B07c
DV-ROUT-7	B09d
DV-ROUT-8	B07c
DV-ROUT-8	B09d
DV-ROUT-9	B07c
DV-ROUT-9	B09d
DV-VREF	B05b
DV-VREF	B11b
EA	B05e
EA	B05g
EJTAG-DETECT	B05e
EJTAG-DETECT	B07e
EJTAG-TCK	B07a
EJTAG-TCK	B07e
EJTAG-TDI	B07a
EJTAG-TDI	B07e
EJTAG-TDO	B07a
EJTAG-TDO	B07e
EJTAG-TMS	B07a
EJTAG-TMS	B07e
ENABLE-1V2	B01
ENABLE-1V2	B05g
ENABLE-2V5	B01
ENABLE-2V5	B05g
ENABLE-3V3	B01
ENABLE-3V3	B05g
ENABLE5V	B09b
ENABLE5V	B09c
FFe	B09d
FFo	B09d
FRONT_C	B04a
FRONT_C	B04e
FRONT_C	B16a
FRONT_Y-CVBS	B04a
FRONT_Y-CVBS	B04e
FRONT_Y-CVBS	B16a
FRONT-DETECT	B05e
FRONT-DETECT	B16a
G0e	B09d
G0o	B09d
G1e	B09d
G1o	B09d
G2e	B09d
G2o	B09d
G3e	B09d
G3o	B09d
G4e	B09d
G4o	B09d
G5e	B09d
G5o	B09d
G6e	B09d
G6o	B09d
G7e	B09d
G7o	B09d
GLINK-IR-OUT	B07a
GLINK-RXD	B07a
GLINK-RXD	B14b
GLINK-TXD	B07a
GLINK-TXD	B14b
GND1V2	B01
GND2V8	B01
GND3V3	B01
HDMI-COAST	B07a
HDMI-COAST	B11b
HPD-HIRATE	B07a
HPD-HIRATE	B11a
HPD-HIRATE	B11b
HSe	B09d
HSo	B09d
HV-PRM-MAIN	B04a
HV-PRM-MAIN	B05a
HV-PRM-SUB	B04e
HV-PRM-SUB	B05a
I2S-BCLK-AVIP	B05a
I2S-BCLK-AVIP	B07c
I2S-BCLK-MAIN	B05a
I2S-BCLK-MAIN	B07c
I2S-BCLK-SUB	B05a
I2S-BCLK-SUB	B07c
I2S-MAIN-D	B05a
I2S-MAIN-D	B07c
I2S-MAIN-ND	B05a
I2S-MAIN-ND	B07c
I2S-MCH-CSW	B05a
I2S-MCH-CSW	B07c
I2S-MCH-LR	B05a
I2S-MCH-LR	B07c
I2S-MCH-SLR	B05a
I2S-MCH-SLR	B07c
I2S-SUB-D	B05a
I2S-SUB-D	B07c
I2S-SUB-ND	B05a
I2S-SUB-ND	B07c
I2S-WS-AVIP	B05a
I2S-WS-AVIP	B07c
I2S-WS-MAIN	B05a
I2S-WS-MAIN	B07c
I2S-WS-SUB	B05a
I2S-WS-SUB	B07c
IF-TER1	B03
IF-TER1	B04g
IF-TER2	B02
IF-TER2	B04c
IO-EXP-1	B05e
IO-EXP-1	B14b
IO-EXP-1	B14c
IO-EXP-2	B05e
IO-EXP-2	B14b
IO-EXP-2	B14c
IO-EXP-7	B16b
IRQ-AVIP	B05e
IRQ-AVIP	B07a
IRQ-AVIP-SUB	B05e
IRQ-AVIP-SUB	B07a
IRQ-ETHERNET	B07a
IRQ-ETHERNET	B15
IRQ-FE-MAIN	B07a
IRQ-FE-SUB	B07a
IRQ-HD1	B05e
IRQ-HD1	B07a
IRQ-HD2	B05e
IRQ-HD2	B07a
IRQ-HIRATE	B05e
IRQ-HIRATE	B07a
IRQ-HIRATE	B11b
IRQ-IEEE1394	B07a
IRQ-MAIN	B07a
IRQ-MPIF	B04b
IRQ-MPIF	B07a
IRQ-MPIF-SUB	B04f
IRQ-MPIF-SUB	B07a
IRQ-POD	B05e
IRQ-POD	B07a
IRQ-SPIDER	B06a
IRQ-SPIDER	B07a
IRQ-SUB	B07a
IRQ-USB20	B07a
IRQ-USB20	B13a
JTAG-TCK	B05e
JTAG-TCK	B06a
JTAG-TCK	B07a
JTAG-TCK	B07e
JTAG-TCK	B11b
JTAG-TD-CON-VIPER	B07a
JTAG-TD-CON-VIPER	B07e
JTAG-TD-HDMI-PNX2015	B05e
JTAG-TD-HDMI-PNX2015	B11b
JTAG-TD-MOP-SPIDER	B06a
JTAG-TD-MOP-SPIDER	B09c
JTAG-TD-PNX2015-POD	B05e
JTAG-TD-PNX2015-POD	B12a
JTAG-TD-POD-CON	B07e
JTAG-TD-POD-CON	B12a
JTAG-TD-SPIDER-HDMI	B06a
JTAG-TD-SPIDER-HDMI	B11b
JTAG-TD-VIPER-MOP	B07a
JTAG-TD-VIPER-MOP	B09c
JTAG-TMS	B05e
JTAG-TMS	B06a
JTAG-TMS	B07a
JTAG-TMS	B07e
JTAG-TMS	B11b
JTAG-TRST	B05e
JTAG-TRST	B06a
JTAG-TRST	B07a
JTAG-TRST	B07e
JTAG-TRST	B11b
KEYBOARD	B05e
KEYBOARD	B16a
LAMP-ON	B05g
LAMP-ON	B16a
LDQS	B06b
LED1	B05e
LED1	B16a
LED1-3V3	B05e
LED2	B05e
LED2	B16a
LED2-3V3	B05e
LIGHT-SENSOR	B05e
LIGHT-SENSOR	B16a
LVDS-3V3	B05f
LVDS-PLL-3V3	B05f
M135-CLK	B07a
M135-CLK	B11b
M27-CLK	B05a
M27-CLK	B07a
M27-HDMI	B05a
M27-HDMI	B11b
M27-MOP	B05a
M27-MOP	B09d
M27-PNX	B05a
M27-PNX	B05e
MM_A0	B07b
MM_A1	B07b
MM_A10	B07b
MM_A11	B07b
MM_A12	B07b
MM_A2	B07b
MM_A3	B07b
MM_A4	B07b
MM_A5	B07b
MM_A6	B07b
MM_A7	B07b
MM_A8	B07b
MM_A9	B07b
MM_BA0	B07b
MM_BA1	B07b
MM_CAS	B07b
MM_CKE	B07b
MM_CLK_N	B07b
MM_CLK_P	B07b
MM_CS0	B07b
MM_DATA_0	B07b
MM_DATA_1	B07b
MM_DATA_10	B07b
MM_DATA_11	B07b
MM_DATA_12	B07b
MM_DATA_13	B07b
MM_DATA_14	B07b
MM_DATA_15	B07b
MM_DATA_16	B07b
MM_DATA_17	B07b
MM_DATA_18	B07b
MM_DATA_19	B07b
MM_DATA_2	B07b
MM_DATA_20	B07b
MM_DATA_21	B07b
MM_DATA_22	B07b
MM_DATA_23	B07b
MM_DATA_24	B07b
MM_DATA_25	B07b
MM_DATA_26	B07b
MM_DATA_27	B07b
MM_DATA_28	B07b
MM_DATA_29	B07b
MM_DATA_3	B07b
MM_DATA_30	B07b
MM_DATA_31	B07b
MM_DATA_4	B07b
MM_DATA_5	B07b
MM_DATA_6	B07b
MM_DATA_7	B07b
MM_DATA_8	B07b
MM_DATA_9	B07b
MM_DQM_0	B07b
MM_DQM_1	B07b
MM_DQM_2	B07b
MM_DQM_3	B07b
MM_DQS0	B07b
MM_DQS1	B07b
MM_DQS2	B07b
MM_DQS3	B07b
MM_RAS	B07b
MM_WE	B07b
MP-BOUT-0	B05b
MP-BOUT-1	B05b
MP-BOUT-2	B05b
MP-BOUT-3	B05b
MP-BOUT-4	B05b
MP-BOUT-5	B05b
MP-BOUT-6	B05b
MP-BOUT-7	B05b
MP-BOUT-8	B05b
MP-BOUT-9	B05b
MP-CLKOUT	B05b
MP-GOUT-0	B05b
MP-GOUT-1	B05b
MP-GOUT-2	B05b
MP-GOUT-3	B05b
MP-GOUT-4	B05b
MP-GOUT-5	B05b
MP-GOUT-6	B05b
MP-GOUT-7	B05b
MP-GOUT-8	B05b
MP-GOUT-9	B05b
MP-OUT-DE	B05b
MP-OUT-FFIELD	B05b
MP-OUT-HS	B05b
MP-OUT-VS	B05b
MP-ROUT-0	B05b
MP-ROUT-1	B05b
MP-ROUT-2	B05b
MP-ROUT-3	B05b
MP-ROUT-4	B05b
MP-ROUT-5	B05b
MP-ROUT-6	B05b
MP-ROUT-7	B05b
MP-ROUT-8	B05b
MP-ROUT-9	B05b

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SSB: Signal Lines Overview (v3) Part 2

NAND-AD(0)	B08b
NAND-AD(1)	B08b
NAND-AD(10)	B08b
NAND-AD(11)	B08b
NAND-AD(12)	B08b
NAND-AD(13)	B08b
NAND-AD(14)	B08b
NAND-AD(15)	B08b
NAND-AD(2)	B08b
NAND-AD(3)	B08b
NAND-AD(4)	B08b
NAND-AD(5)	B08b
NAND-AD(6)	B08b
NAND-AD(7)	B08b
NAND-AD(8)	B08b
NAND-AD(9)	B08b
NAND-ALE	B08b
NAND-CLE	B08b
NAND-REN	B08b
NAND-WEN	B08b
ON-MODE	B05e
ON-MODE	B05g
P0.0	B05e
P0.0	B05g
P0.1	B05e
P0.1	B05g
P0.2	B05e
P0.2	B05g
P0.3	B05e
P0.3	B05g
P0.4	B05e
P0.4	B05g
P0.5	B05e
P0.5	B05g
P0.6	B05e
P0.6	B05g
P0.7	B05e
P0.7	B05g
P2.0	B05e
P2.0	B05g
P2.1	B05e
P2.1	B05g
P2.2	B05e
P2.2	B05g
P2.3	B05e
P2.3	B05g
P2.4	B05e
P2.4	B05g
P2.5	B05e
P2.5	B05g
P2.6	B05g
P2.6-TEST	B05g
P2.7	B05e
P2.7	B05g
P50	B05e
P50	B16b
P50-3V3	B05e
P50-HDMI	B05e
P50-HDMI	B11a
PARX0-	B11a
PARX0-	B11b
PARX0+	B11a
PARX0+	B11b
PARX1-	B11a
PARX1-	B11b
PARX1+	B11a
PARX1+	B11b
PARX2-	B11a
PARX2-	B11b
PARX2+	B11a
PARX2+	B11b
PARXC-	B11a
PARXC-	B11b
PARXC+	B11a
PARXC+	B11b
PARX-DDC-SCL	B11a
PARX-DDC-SCL	B11b
PARX-DDC-SDA	B11a
PARX-DDC-SDA	B11b
PB	B11b
PB	B14b
PBRX0-	B11a
PBRX0-	B11b
PBRX0+	B11a
PBRX0+	B11b
PBRX1-	B11a
PBRX1-	B11b
PBRX1+	B11a
PBRX1+	B11b
PBRX2-	B11a
PBRX2-	B11b
PBRX2+	B11a
PBRX2+	B11b
PBRXC-	B11a
PBRXC-	B11b
PBRXC+	B11a
PBRXC+	B11b
PBRX-DDC-SCL	B11a
PBRX-DDC-SCL	B11b
PBRX-DDC-SDA	B11a
PBRX-DDC-SDA	B11b
PCI-AD0	B07a
PCI-AD0	B08b
PCI-AD0	B12b
PCI-AD0	B13a
PCI-AD0	B13b
PCI-AD0	B15
PCI-AD1	B07a
PCI-AD1	B08b
PCI-AD1	B12b
PCI-AD1	B13a
PCI-AD1	B13b
PCI-AD1	B15
PCI-AD10	B07a
PCI-AD10	B12b
PCI-AD10	B13a
PCI-AD10	B13b
PCI-AD10	B15
PCI-AD11	B07a
PCI-AD11	B12b
PCI-AD11	B13a
PCI-AD11	B13b
PCI-AD11	B15
PCI-AD12	B07a
PCI-AD12	B12b
PCI-AD12	B13a
PCI-AD12	B13b
PCI-AD12	B15
PCI-AD13	B07a
PCI-AD13	B12b
PCI-AD13	B13a
PCI-AD13	B13b
PCI-AD13	B15
PCI-AD14	B07a
PCI-AD14	B12b
PCI-AD14	B13a
PCI-AD14	B13b
PCI-AD14	B15
PCI-AD15	B07a
PCI-AD15	B12b
PCI-AD15	B13a
PCI-AD15	B13b
PCI-AD15	B15
PCI-AD16	B07a
PCI-AD16	B08b
PCI-AD16	B12b
PCI-AD16	B13a
PCI-AD16	B13b
PCI-AD16	B15
PCI-AD17	B07a
PCI-AD17	B08b
PCI-AD17	B12b
PCI-AD17	B13a
PCI-AD17	B13b
PCI-AD17	B15
PCI-AD18	B07a
PCI-AD18	B08b
PCI-AD18	B12b
PCI-AD18	B13a
PCI-AD18	B13b
PCI-AD18	B15
PCI-AD19	B07a
PCI-AD19	B08b
PCI-AD19	B12b
PCI-AD19	B13a
PCI-AD19	B13b
PCI-AD19	B15
PCI-AD2	B07a
PCI-AD2	B12b
PCI-AD2	B13a
PCI-AD2	B13b
PCI-AD2	B15
PCI-AD20	B07a
PCI-AD20	B08b
PCI-AD20	B12b
PCI-AD20	B13a
PCI-AD20	B13b
PCI-AD20	B15
PCI-AD21	B07a
PCI-AD21	B08b
PCI-AD21	B12b
PCI-AD21	B13a
PCI-AD21	B13b
PCI-AD21	B15
PCI-AD22	B07a
PCI-AD22	B08b
PCI-AD22	B12b
PCI-AD22	B13a
PCI-AD22	B13b
PCI-AD22	B15
PCI-AD23	B07a
PCI-AD23	B08b
PCI-AD23	B12b
PCI-AD23	B13a
PCI-AD23	B13b
PCI-AD23	B15
PCI-AD24	B07a
PCI-AD24	B08b
PCI-AD24	B12b
PCI-AD24	B13a
PCI-AD24	B13b
PCI-AD24	B15
PCI-AD25	B07a
PCI-AD25	B08b
PCI-AD25	B12b
PCI-AD25	B13a
PCI-AD25	B13b
PCI-AD25	B15
PCI-AD26	B07a
PCI-AD26	B08b
PCI-AD26	B12b
PCI-AD26	B13a
PCI-AD26	B13b
PCI-AD26	B15
PCI-AD27	B07a
PCI-AD27	B08b
PCI-AD27	B12b
PCI-AD27	B13a
PCI-AD27	B13b
PCI-AD27	B15
PCI-AD28	B07a
PCI-AD28	B08b
PCI-AD28	B12b
PCI-AD28	B13a
PCI-AD28	B13b
PCI-AD28	B15
PCI-AD29	B07a
PCI-AD29	B08b
PCI-AD29	B12b
PCI-AD29	B13a
PCI-AD29	B13b
PCI-AD29	B15
PCI-AD3	B07a
PCI-AD3	B12b
PCI-AD3	B13a
PCI-AD3	B13b
PCI-AD3	B15
PCI-AD30	B07a
PCI-AD30	B08b
PCI-AD30	B12b
PCI-AD30	B13a
PCI-AD30	B13b
PCI-AD30	B15
PCI-AD31	B07a
PCI-AD31	B08b
PCI-AD31	B12b
PCI-AD31	B13a
PCI-AD31	B13b
PCI-AD31	B15
PCI-AD4	B07a
PCI-AD4	B12b
PCI-AD4	B13a
PCI-AD4	B13b
PCI-AD4	B15
PCI-AD5	B07a
PCI-AD5	B12b
PCI-AD5	B13a
PCI-AD5	B13b
PCI-AD5	B15
PCI-AD6	B07a
PCI-AD6	B12b
PCI-AD6	B13a
PCI-AD6	B13b
PCI-AD6	B15
PCI-AD7	B07a
PCI-AD7	B12b
PCI-AD7	B13a
PCI-AD7	B13b
PCI-AD7	B15
PCI-AD8	B07a
PCI-AD8	B12b
PCI-AD8	B13a
PCI-AD8	B13b
PCI-AD8	B15
PCI-AD9	B07a
PCI-AD9	B12b
PCI-AD9	B13a
PCI-AD9	B13b
PCI-AD9	B15
PCI-CBE0	B07a
PCI-CBE0	B12b
PCI-CBE0	B13a
PCI-CBE0	B13b
PCI-CBE0	B15
PCI-CBE1	B07a
PCI-CBE1	B08b
PCI-CBE1	B12b
PCI-CBE1	B13a
PCI-CBE1	B13b
PCI-CBE1	B15
PCI-CBE2	B07a
PCI-CBE2	B08b
PCI-CBE2	B12b
PCI-CBE2	B13a
PCI-CBE2	B13b
PCI-CBE2	B15
PCI-CBE3	B07a
PCI-CBE3	B12b
PCI-CBE3	B13a
PCI-CBE3	B13b
PCI-CBE3	B15
PCI-CLK-ETHERNET	B08b
PCI-CLK-ETHERNET	B15
PCI-CLK-SLOT	B08b
PCI-CLK-SLOT	B12b
PCI-CLK-SLOT	B13b
PCI-CLK-SPIDER	B06a
PCI-CLK-SPIDER	B08b
PCI-CLK-USB20	B08b
PCI-CLK-USB20	B13a
PCI-CLK-VPR	B07a
PCI-CLK-VPR	B08b
PCI-DEVSEL	B07a
PCI-DEVSEL	B12b
PCI-DEVSEL	B13a
PCI-DEVSEL	B13b
PCI-DEVSEL	B15
PCI-FRAME	B07a
PCI-FRAME	B12b
PCI-FRAME	B13a
PCI-FRAME	B13b
PCI-FRAME	B15
PCI-GNT	B07a
PCI-GNT	B12b
PCI-GNT	B13a
PCI-GNT	B13b
PCI-GNT-A	B07a
PCI-GNT-A	B12b
PCI-GNT-A	B13b
PCI-GNT-A	B15
PCI-GNT-B	B12b
PCI-GNT-C	B12b
PCI-GNT-C	B13a
PCI-GNT-C	B13b
PCI-INT-1	B12b
PCI-INT-2	B12b
PCI-INTA	B07a
PCI-INTA	B12b
PCI-IRDY	B07a
PCI-IRDY	B12b
PCI-IRDY	B13a
PCI-IRDY	B13b
PCI-IRDY	B15
PCI-PAR	B07a
PCI-PAR	B12b
PCI-PAR	B13a
PCI-PAR	B13b
PCI-PAR	B15
PCI-PERR	B07a
PCI-PERR	B12b
PCI-PERR	B13a
PCI-PERR	B13b
PCI-PERR	B15
PCI-REQ	B07a
PCI-REQ	B12b
PCI-REQ	B13a
PCI-REQ	B13b
PCI-REQ-A	B07a
PCI-REQ-A	B12b
PCI-REQ-A	B13b
PCI-REQ-A	B15
PCI-REQ-B	B07a
PCI-REQ-B	B12b
PCI-REQ-C	B12b
PCI-REQ-C	B13a
PCI-REQ-C	B13b
PCI-SERR	B07a
PCI-SERR	B12b
PCI-SERR	B13a
PCI-SERR	B13b
PCI-SERR	B15
PCI-STOP	B07a
PCI-STOP	B12b
PCI-STOP	B13a
PCI-STOP	B13b
PCI-STOP	B15
PCI-TRDY	B07a
PCI-TRDY	B12b
PCI-TRDY	B13a
PCI-TRDY	B13b
PCI-TRDY	B15
PLL-1V2	B05f
PLL-3V3	B05f
PLL-OUT	B07a
PLL-OUT	B08b
PNX-MA-0	B05d
PNX-MA-1	B05d
PNX-MA-10	B05d
PNX-MA-11	B05d
PNX-MA-12	B05d
PNX-MA-2	B05d
PNX-MA-3	B05d
PNX-MA-4	B05d
PNX-MA-5	B05d
PNX-MA-6	B05d
PNX-MA-7	B05d
PNX-MA-8	B05d
PNX-MA-9	B05d
PNX-MBA0	B05d
PNX-MBA1	B05d
PNX-MCAS	B05d
PNX-MCKE	B05d
PNX-MCLK-N	B05d
PNX-MCLK-P	B05d
PNX-MCS-0	B05d
PNX-MDATA-0	B05d
PNX-MDATA-1	B05d
PNX-MDATA-10	B05d
PNX-MDATA-11	B05d
PNX-MDATA-12	B05d
PNX-MDATA-13	B05d
PNX-MDATA-14	B05d
PNX-MDATA-15	B05d
PNX-MDATA-2	B05d
PNX-MDATA-3	B05d
PNX-MDATA-4	B05d
PNX-MDATA-5	B05d
PNX-MDATA-6	B05d
PNX-MDATA-7	B05d
PNX-MDATA-8	B05d
PNX-MDATA-9	B05d
PNX-MDQM-0	B05d
PNX-MDQM-1	B05d
PNX-MDQS-0	B05d
PNX-MDQS-1	B05d
PNX-MRAS	B05d
PNX-MWE	B05d
POD-MODE	B01
POD-MODE	B05e
POD-MODE	B05g
POWERDOWN-1394	B07a
POWERDOWN-1394	B11b
POWER-OK-DISPLAY	B05e
POWER-OK-DISPLAY	B16a
POWER-OK-PLATFORM-3V3	B05e
POWER-OK-PLATFORM-3V3	B07a
POWER-OK-PLATFORM-3V3	B16a
PR	B11b
PR	B14b
PROT_DC	B01
PROT-AUDIOSUPPLY	B05g
PROT-AUDIOSUPPLY	B16a
PSEN	B05e
PSEN	B05g
PWRDWN	B09d
R0e	B09d
R0o	B09d
R1e	B09d
R1o	B09d
R2e	B09d
R2o	B09d
R3e	B09d
R3o	B09d
R4e	B09d
R4o	B09d
R5e	B09d
R5o	B09d
R6e	B09d
R6o	B09d
R7e	B09d
R7o	B09d
RAS	B06b
RAS	B09d
RC	B05e
RC	B16a
REGIMBEAU	B07a
REGIMBEAU	B16b
RESET-1394	B07a
RESET-AUDIO	B05e
RESET-AUDIO	B08c
RESET-ETHERNET	B07a
RESET-ETHERNET	B15
RESET-FE-MAIN	B07a
RESET-FE-SUB	B07a
RESET-Main-NVM	B05e
RESET-Main-NVM	B08a
RESET-MIPS	B05e
RESET-MIPS	B07a
RESET-PNX2015	B05e
RESET-POD-CI	B07a
RESET-STBY	B05g
RESET-STBY	B08a
RESET-SYSTEM	B05e
RESET-SYSTEM	B07a
RESET-SYSTEM	B07e
RESET-SYSTEM	B12b
RESET-SYSTEM	B13b
RESET-TM	B06a
RESET-TM	B07a
RESET-UP	B05e
RESET-UP	B05g
RESET-USB20	B07a
RESET-USB20	B13a
RXD	B08a
RXD	B14b
RXD	B16b
RXD-UP	B05e
RXD-UP	B08a
RXD-VIPER	B07a
RXD-VIPER	B08a
SCL-AMBI	B09b
SCL-AMBI	B16a
SCL-DMA	B07a
SCL-DMA	B07e
SCL-DMA	B08a
SCL-DMA-BUS1	B06a
SCL-DMA-BUS1	B08a
SCL-DMA-BUS2	B04b
SCL-DMA-BUS2	B04f
SCL-DMA-BUS2	B05e
SCL-DMA-BUS2	B08a
SCL-I2C4	B07a
SCL-I2C4	B07e
SCL-I2C4	B09b
SCL-I2C4-DISP	B09b
SCL-I2C4-DISP	B09c
SCL-MM	B07a
SCL-MM	B07e
SCL-MM	B08a
SCL-MM-BUS1	B08a
SCL-MM-BUS1	B09b
SCL-MM-BUS1	B09d
SCL-MM-BUS1	B11b
SCL-MM-BUS2	B08a
SCL-MM-BUS2	B14b
SCL-MM-BUS2	B16a
SCL-MM-BUS2	B16b
SCL-MOP	B09b
SCL-MOP	B09d
SCL-TUN	B02
SCL-TUN	B08a
SCL-UP-SW	B05e
SCL-UP-VIP	B05e
SCL-UP-VIP	B07a
SCL-UP-VIP	B07e
SCL-UP-VIP	B08a
SDA-AMBI	B09b
SDA-AMBI	B16a
SDAC-VDDD	B05e
SDA-DMA	B07a
SDA-DMA	B07e
SDA-DMA	B08a
SDA-DMA-BUS1	B06a
SDA-DMA-BUS1	B08a
SDA-DMA-BUS2	B04b
SDA-DMA-BUS2	B04f
SDA-DMA-BUS2	B05e
SDA-DMA-BUS2	B08a
SDA-I2C4	B07a
SDA-I2C4	B07e
SDA-I2C4	B09b
SDA-I2C4-DISP	B09b
SDA-I2C4-DISP	B09c
SDA-MM	B07a
SDA-MM	B07e
SDA-MM	B08a
SDA-MM-BUS1	B08a
SDA-MM-BUS1	B09b
SDA-MM-BUS1	B09d
SDA-MM-BUS1	B11b
SDA-MM-BUS2	B08a
SDA-MM-BUS2	B14b
SDA-MM-BUS2	B16a
SDA-MM-BUS2	B16b
SDA-MOP	B09b
SDA-MOP	B09d
SDA-TUN	B02
SDA-TUN	B08a
SDA-UP-SW	B05e
SDA-UP-VIP	B05e
SDA-UP-VIP	B07a
SDA-UP-VIP	B07e
SDA-UP-VIP	B08a
SDM	B05e
SDM	B16b
SDM-PNX	B05e
SEL-DV1F	B07a
SEL-DV3F	B07a
SEL-IF-LL1	B04g
SEL-IF-LL1	B07a
SEL-IF-LL2	B04c
SEL-IF-LL2	B07a
SOUND-ENABLE	B07a
SOUND-ENABLE	B16a
SOUND-ENABLE-VPR	B07a
SPDIF-HDMI	B07c
SPDIF-HDMI	B11b
SPDIF-IN1	B07c
SPDIF-IN1	B14c
SPDIF-OPT-IN	B14c
SPDIF-OPT-IN	B16b
SPDIF-OUT1	B07c
SPDIF-OUT1	B14c
SPDIF-SEL-OUT1	B14c
SPI-1	B14b
SPI-1	B14c
SPI-2	B14b
SPI-2	B14c
SPI-CLK	B05e
SPI-CSB	B05e
SPI-OUT	B14b
SPI-OUT	B14c
SPI-PROG	B05e
SPI-PROG	B16b
SPI-PROG-PNX	B05e
SPI-SDI	B05e
SPI-SDO	B05e
SPI-WP	B05e
S-SCL-PIP	B02
S-SCL-PIP	B03
S-SDA-PIP	B02
S-SDA-PIP	B03
STANDBY	B05e
STANDBY	B16a
STBY-WP-NAND-FLASH	B05e
STBY-WP-NAND-FLASH	B08b
STROBE1N-MAIN	B04a
STROBE1N-MAIN	B05a
STROBE1N-SUB	B04e
STROBE1N-SUB	B05a
STROBE1P-MAIN	B04a
STROBE1P-MAIN	B05a
STROBE1P-SUB	B04e
STROBE1P-SUB	B05a
STROBE2N-MAIN	B04a
STROBE2N-MAIN	B05a
STROBE2N-SUB	B04e
STROBE2N-SUB	B05a
STROBE2P-MAIN	B04a
STROBE2P-MAIN	B05a
STROBE2P-SUB	B04e
STROBE2P-SUB	B05a
STROBE3N-MAIN	B04a
STROBE3N-MAIN	B05a
STROBE3N-SUB	B04e
STROBE3N-SUB	B05a
STROBE3P-MAIN	B04a
STROBE3P-MAIN	B05a
STROBE3P-SUB	B04e
STROBE3P-SUB	B05a
SUPPLY-FAULT	B05e
SUPPLY-FAULT	B09b
SUPPLY-FAULT	B16b
TEMP-SENSOR	B05e
TS-CLK	B07c
TS-DATA0	B07c
TS-DATA1	B07c
TS-DATA2	B07c
TS-DATA3	B07c
TS-DATA4	B07c
TS-DATA5	B07c
TS-DATA6	B07c
TS-DATA7	B07c
TS-SOP	B07c
TS-VALID	B07c
TUNN-REF	B05c
TUN-SPIDER-RX-BUSY	B05c
TUN-SPIDER-RX-BUSY	B06a
TUN-SPIDER-RX-CLKN	B05c
TUN-SPIDER-RX-CLKN	B06a
TUN-SPIDER-RX-CLKP	B05c
TUN-SPIDER-RX-CLKP	B06a
TUN-SPIDER-RX-DATA0	B05c
TUN-SPIDER-RX-DATA0	B06a
TUN-SPIDER-RX-DATA1	B05c
TUN-SPIDER-RX-DATA1	B06a
TUN-SPIDER-RX-DATA10	B05c
TUN-SPIDER-RX-DATA10	B06a
TUN-SPIDER-RX-DATA11	B05c
TUN-SPIDER-RX-DATA11	B06a
TUN-SPIDER-RX-DATA12	B05c
TUN-SPIDER-RX-DATA12	B06a
TUN-SPIDER-RX-DATA13	B05c
TUN-SPIDER-RX-DATA13	B06a
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TUN-SPIDER-RX-DATA14	B06a
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TUN-SPIDER-RX-DATA15	B06a
TUN-SPIDER-RX-DATA2	B05c
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TUN-SPIDER-RX-DATA3	B06a
TUN-SPIDER-RX-DATA4	B05c
TUN-SPIDER-RX-DATA4	B06a
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TUN-SPIDER-RX-DATA5	B06a
TUN-SPIDER-RX-DATA6	B05c
TUN-SPIDER-RX-DATA6	B06a
TUN-SPIDER-RX-DATA7	B05c
TUN-SPIDER-RX-DATA7	B06a
TUN-SPIDER-RX-DATA8	B05c
TUN-SPIDER-RX-DATA8	B06a
TUN-SPIDER-RX-DATA9	B05c
TUN-SPIDER-RX-DATA9	B06a
TUN-SPIDER-TX-BUSY	B05c
TUN-SPIDER-TX-BUSY	B06a
TUN-SPIDER-TX-CLKN	B05c
TUN-SPIDER-TX-CLKN	B06a
TUN-SPIDER-TX-CLKP	B05c
TUN-SPIDER-TX-CLKP	B06a
TUN-SPIDER-TX-DATA0	B05c
TUN-SPIDER-TX-DATA0	B06a
TUN-SPIDER-TX-DATA1	B05c
TUN-SPIDER-TX-DATA1	B06a
TUN-SPIDER-TX-DATA10	B05c
TUN-SPIDER-TX-DATA10	B06a
TUN-SPIDER-TX-DATA11	B05c
TUN-SPIDER-TX-DATA11	B06a
TUN-SPIDER-TX-DATA12	B05c
TUN-SPIDER-TX-DATA12	B06a
TUN-SPIDER-TX-DATA13	B05c
TUN-SPIDER-TX-DATA13	B06a
TUN-SPIDER-TX-DATA14	B05c
TUN-SPIDER-TX-DATA14	B06a
TUN-SPIDER-TX-DATA15	B05c
TUN-SPIDER-TX-DATA15	B06a
TUN-SPIDER-TX-DATA2	B05c
TUN-SPIDER-TX-DATA2	B06a
TUN-SPIDER-TX-DATA3	B05c
TUN-SPIDER-TX-DATA3	B06a
TUN-SPIDER-TX-DATA4	B05c
TUN-SPIDER-TX-DATA4	B06a
TUN-SPIDER-TX-DATA5	B05c
TUN-SPIDER-TX-DATA5	B06a
TUN-SPIDER-TX-DATA6	B05c
TUN-SPIDER-TX-DATA6	B06a
TUN-SPIDER-TX-DATA7	B05c
TUN-SPIDER-TX-DATA7	B06a
TUN-SPIDER-TX-DATA8	B05c
TUN-SPIDER-TX-DATA8	B06a
TUN-SPIDER-TX-DATA9	B05c
TUN-SPIDER-TX-DATA9	B06a
TUNS-REF	B05c
TUN-VIPER-RX-BUSY	B05c
TUN-VIPER-RX-BUSY	B07c
TUN-VIPER-RX-CLKP	B05c
TUN-VIPER-RX-CLKP	B07c
TUN-VIPER-RX-DATA0	B05c
TUN-VIPER-RX-DATA0	B07c
TUN-VIPER-RX-DATA1	B05c
TUN-VIPER-RX-DATA1	B07c
TUN-VIPER-RX-DATA10	B05c
TUN-VIPER-RX-DATA10	B07c
TUN-VIPER-RX-DATA11	B05c
TUN-VIPER-RX-DATA11	B07c
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TUN-VIPER-RX-DATA8	B07c
TUN-VIPER-RX-DATA9	B05c
TUN-VIPER-RX-DATA9	B07c
TUN-VIPER-TX-BUSY	B05c
TUN-VIPER-TX-BUSY	B07c
TUN-VIPER-TX-CLKN	B05c
TUN-VIPER-TX-CLKN	B07c
TUN-VIPER-TX-CLKP	B05c
TUN-VIPER-TX-CLKP	B07c
TUN-VIPER-TX-DATA0	B05c
TUN-VIPER-TX-DATA0	B07c
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TUN-VIPER-TX-DATA10	B07c
TUN-VIPER-TX-DATA11	B05c
TUN-VIPER-TX-DATA11	B07c
TUN-VIPER-TX-DATA12	B05c
TUN-VIPER-TX-DATA12	B07c
TUN-VIPER-TX-DATA13	B05c
TUN-VIPER-TX-DATA13	B07c
TUN-VIPER-TX-DATA14	B05c
TUN-VIPER-TX-DATA14	B07c
TUN-VIPER-TX-DATA15	B05c
TUN-VIPER-TX-DATA15	B07c
TUN-VIPER-TX-DATA2	B05c
TUN-VIPER-TX-DATA2	B07c
TUN-VIPER-TX-DATA3	B05c
TUN-VIPER-TX-DATA3	B07c
TUN-VIPER-TX-DATA4	B05c
TUN-VIPER-TX-DATA4	B07c
TUN-VIPER-TX-DATA5	B05c
TUN-VIPER-TX-DATA5	B07c
TUN-VIPER-TX-DATA6	B05c
TUN-VIPER-TX-DATA6	B07c
TUN-VIPER-TX-DATA7	B05c
TUN-VIPER-TX-DATA7	B07c
TUN-VIPER-TX-DATA8	B05c
TUN-VIPER-TX-DATA8	B07c
TUN-VIPER-TX-DATA9	B05c
TUN-VIPER-TX-DATA9	B07c
TXAe-	B09c
TXAe-	B09d
TXAe+	B09c
TXAe+	B09d
TXAo-	B09c
TXAo-	B09d
TXAo+	B09c
TXAo+	B09d
TXBe-	B09c
TXBe-	B09d
TXBe+	B09c
TXBe+	B09d
TXBo-	B09c
TXBo-	B09d
TXBo+	B09c
TXBo+	B09d
TXCe-	B09c
TXCe-	B09d
TXCe+	B09c
TXCe+	B09d
TXCLKe-	B09c
TXCLKe-	B09d
TXCLKe+	B09c
TXCLKe+	B09d
TXCLKo-	B09c
TXCLKo-	B09d
TXCLKo+	B09c
TXCLKo+	B09d
TXCo-	B09c
TXCo-	B09d
TXCo+	B09c
TXCo+	B09d
TXD	B08a
TXD	B14b
TXD	B16b
TXDe-	B09c
TXDe-	B09d
TXDe+	B09c
TXDe+	B09d
TXDo-	B09c
TXDo-	B09d
TXDo+	B09c
TXDo+	B09d
TXD-UP	B05e
TXD-UP	B08a
TXD-VIPER	B07a
TXD-VIPER	B08a
TXPNXA-	B05b
TXPNXA+	B05b
TXPNXB-	B05b
TXPNXB+	B05b
TXPNXC-	B05b
TXPNXC+	B05b
TXPNXCLK-	B05b
TXPNXCLK+	B05b
TXPNXD-	B05b
TXPNXD+	B05b
TXPNXE-	B05b
TXPNXE+	B05b
UART-SWITCH	B05g
UART-SWITCH	B08a
UART-SWITCH-5V2	B08a
UART-SWITCHn	B08a
UDQS	B06b
UP-3V3	B05f
USB1-DM	B07a
USB1-DM-1	B07a
USB1-DP	B07a
USB1-DP-1	B07a
USB201-DM1	B07a
USB201-DM1	B13a
USB201-DP1	B07a
USB201-DP1	B13a
USB201-OC1	B07a
USB201-OC1	B13a
USB201-PWE1	B07a
USB201-PWE1	B13a
USB202-DM2	B07a
USB202-DM2	B13a
USB202-DP2	B07a
USB202-DP2	B13a
USB202-OC2	B13a
USB202-PWE2	B13a
USB2-DM	B07a
USB2-DM-1	B07a
USB2-DP	B07a
USB2-DP-1	B07a
USB-BUS-PW	B07a
USB-OVERCUR	B07a
VDISP	B09c
VISUAL-CHECK	B02
VISUAL-CHECK	B04c
VREF-AUD-POS	B04b
VREF-AUD-POS	B05a
VREFD-DDR	B07b
VREF-DDR	B07b
VREF-DDR-PNX	B05d
VREFS	B06b
VREF-VPR	B07c
VSe	B09d
VSo	B09d
WE	B06b
WE	B09d
XIO-ACK	B07a
XIO-ACK	B08b
XIO-D10	B07a
XIO-D11	B07a
XIO-D12	B07a
XIO-D13	B07a
XIO-D14	B07a
XIO-D15	B07a
XIO-D8	B07a
XIO-D9	B07a
XIO-SEL0	B07a
XIO-SEL0	B08b
XIO-SEL1	B07a
XIO-SEL2	B07a
Y	B11b
Y	B14b
Y-CVBS-MON-OUT	B08b
Y-CVBS-MON-OUT	B16b

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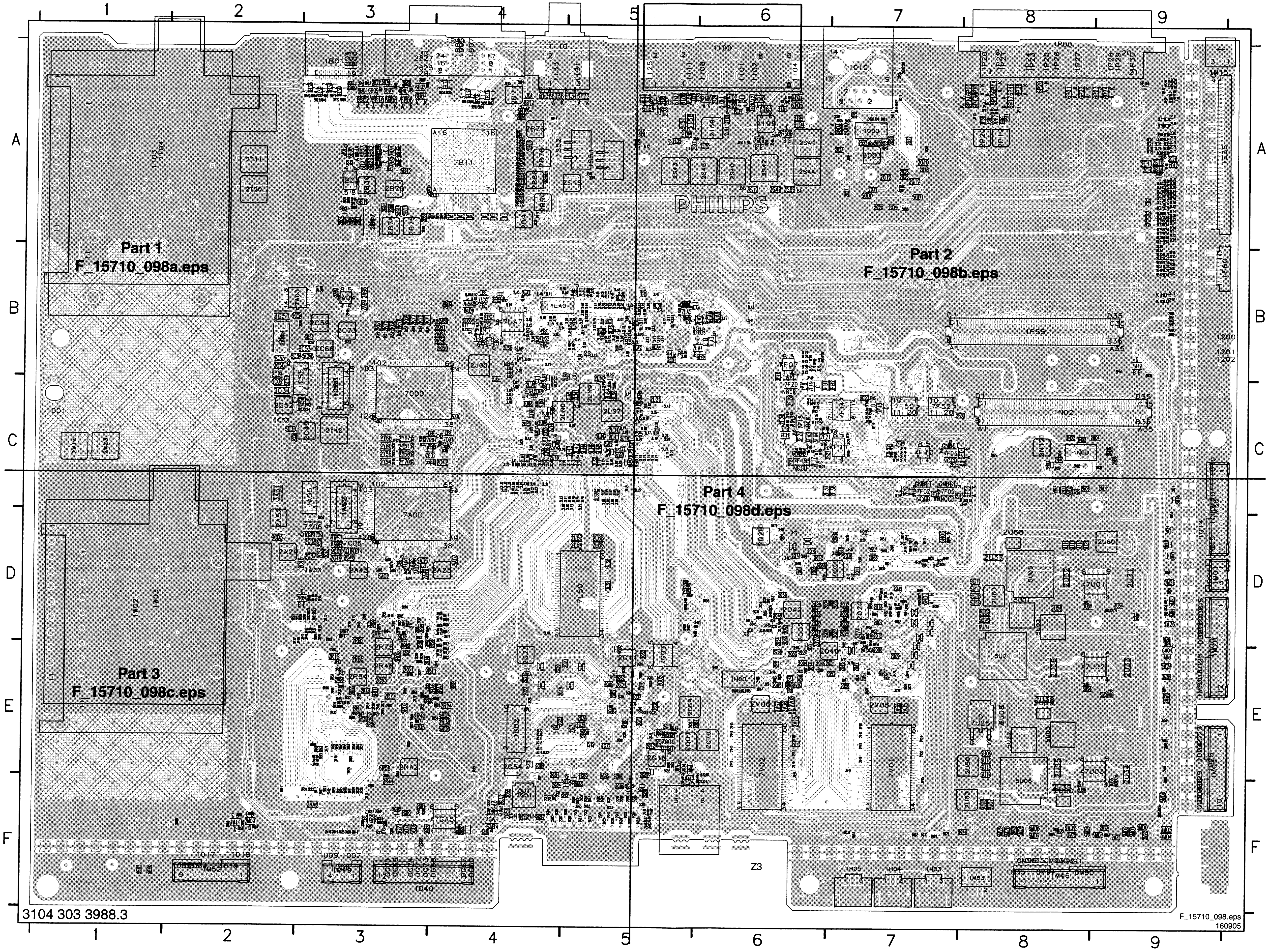
Layout SSB (v3) (Overview Top Side)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Part 2
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Part 3
F_15710_098c.eps
Part 4
F_15710_098d.eps
PHILIPS
1 2 3 4 5 6 7 8 9
A B C D E F
3104 303 3988.3
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Mapping SSB (v3) (Top Side)

1A33 D3
1A53 C3
1A55 C2
1A63 D3
1B01 A3
1B30 A3
1B31 A3
1B32 A3
1B33 A3
1B34 A4
1B35 A4
1B36 A4
1B37 A4
1B40 A4
1C33 C2
1C53 B3
1C55 C3
1C63 C3
1D40 F3
1E35 A9
1E60 B9
1G02 E4
1H00 E6
1H01 E6
1H03 F7
1H04 F7
1H05 F7
1I00 A5
1I07 A5
1I10 A5
1LA0 B4
1M01 D9
1M03 E9
1M15 A9
1M20 D9
1M36 D9
1M46 F9
1M49 F3
1M52 F2
1M63 F8
1N00 C9
1N02 C8
1O00 A7
1O10 A7
1P00 A7
1P55 B8
1S51 A5
1S52 A5
1T03 B1
1T04 B1
1W02 C1
1W03 E1
2A01 D3
2A10 D3
2A25 D4
2A29 D2
2A42 D3
2A45 D3
2A52 D2
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2A96 B3
2A97 B3
2A99 B3
2B00 A3
2B04 A3
2B05 A3
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2F16 B6
2F19 C7
2F21 C6
2F23 C7
2F24 C6
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2F28 C6
2F33 C7
2F37 C6
2F38 C7
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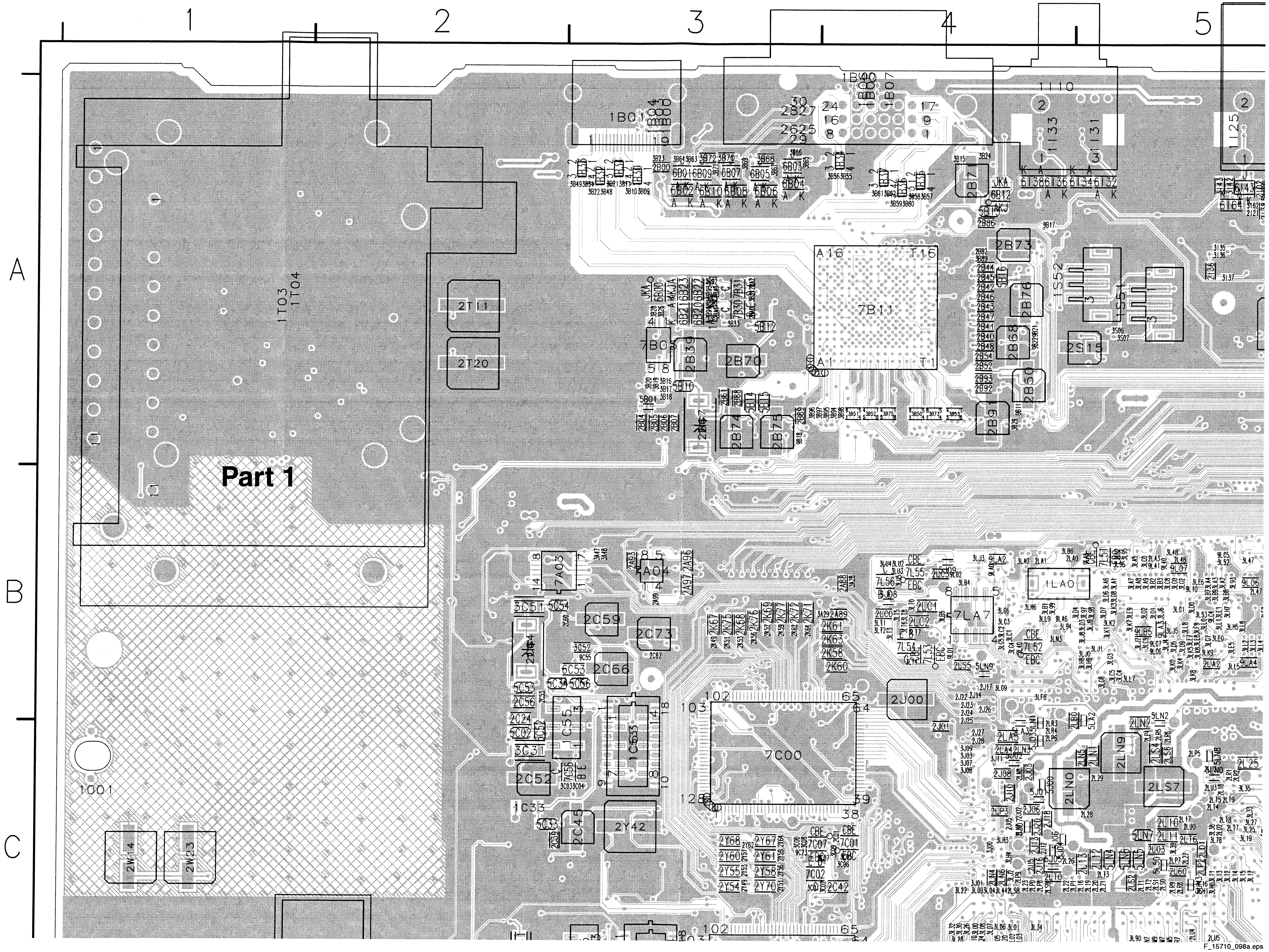
Personal Notes:

E_06532_012.eps
131004

Layout SSB (v3) (Part 1 Top Side)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C
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1B90
1B07
1110
1133
1131
1125
7B11
A16
T16
A1
T1
7B05
2B39
2B70
2B73
2B76
2B68
2B50
2B71
2B74
2B75
2B91
2S15
1S52
1S51
7A03
2A04
2C59
2C73
2C66
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7C56
2C52
1C33
2C45
2Y42
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65
103
64
128
39
38
2J00
1LA0
7LA7
7L55
7L56
7L52
7L54
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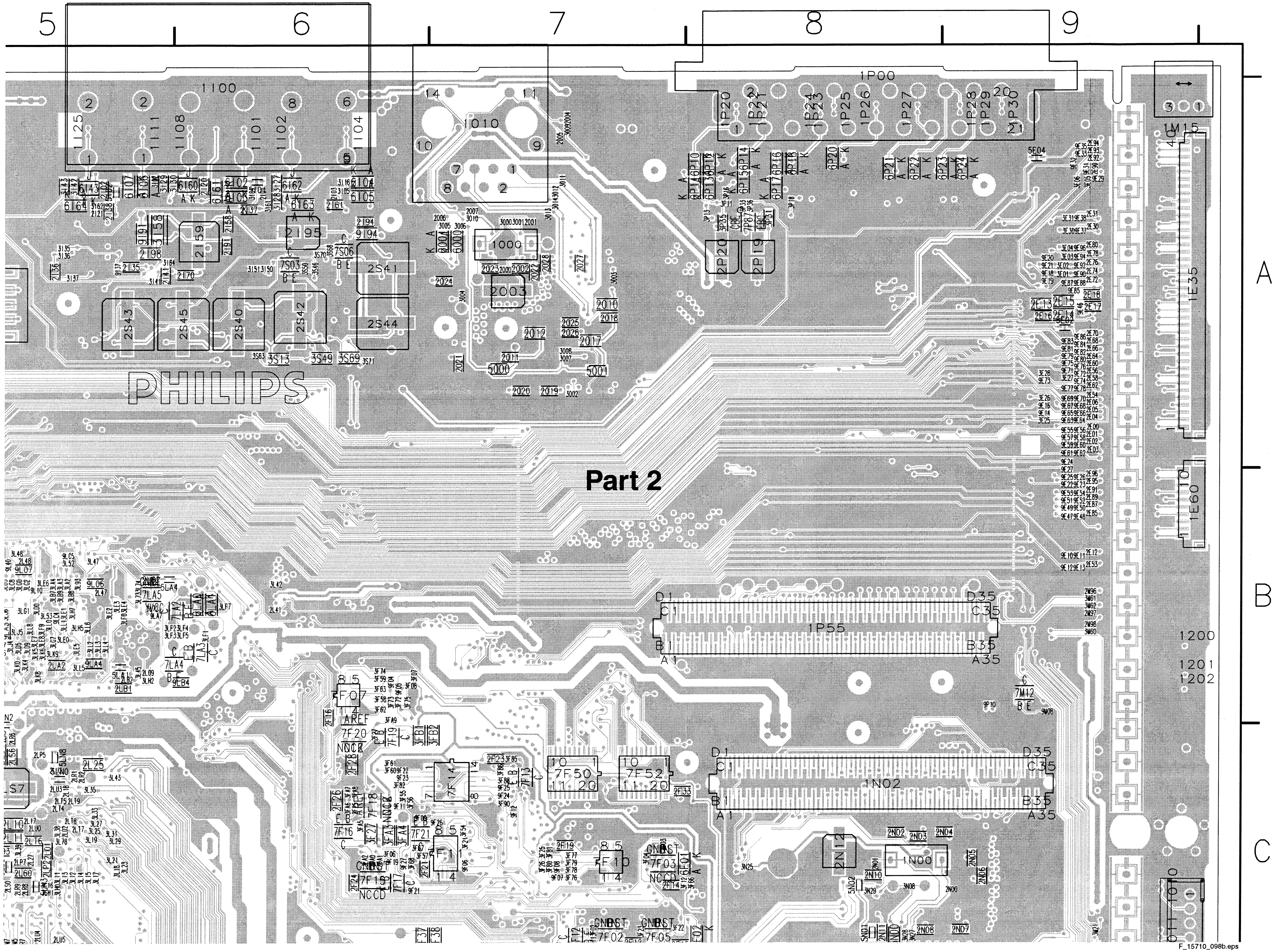
2L25
2LN2

F_15710_098a.eps
160905

Layout SSB (v3) (Part 2 Top Side)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A
B
C
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1010
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2003
1M15
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2S43
2S45
2S40
2S42
2S44
PHILIPS
Part 2
1P55
1N02
1N00
2N12
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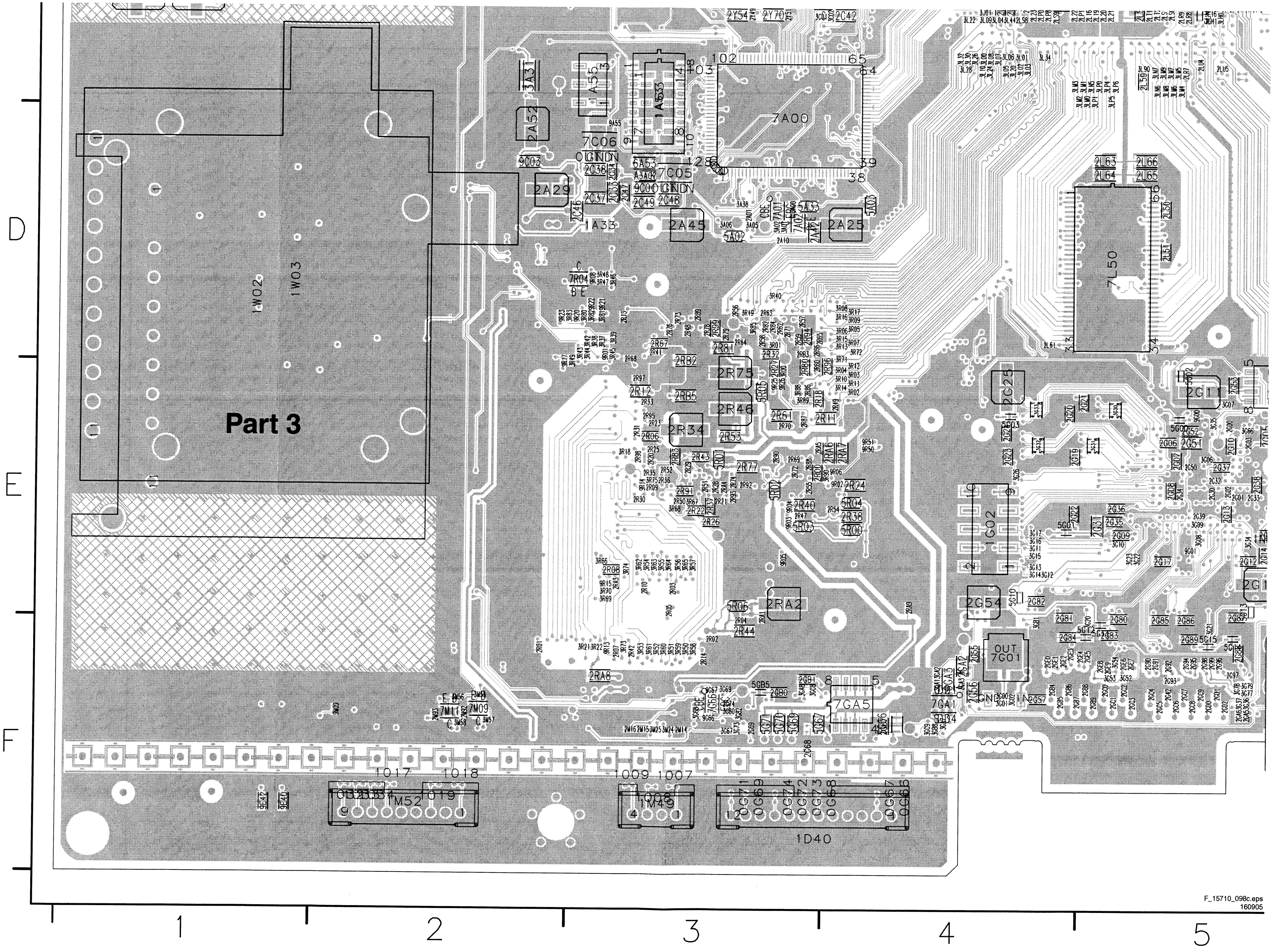
7F14
1200
1201
1202

F_15710_098b.eps
160905

Layout SSB (v3) (Part 3 Top Side)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7C05
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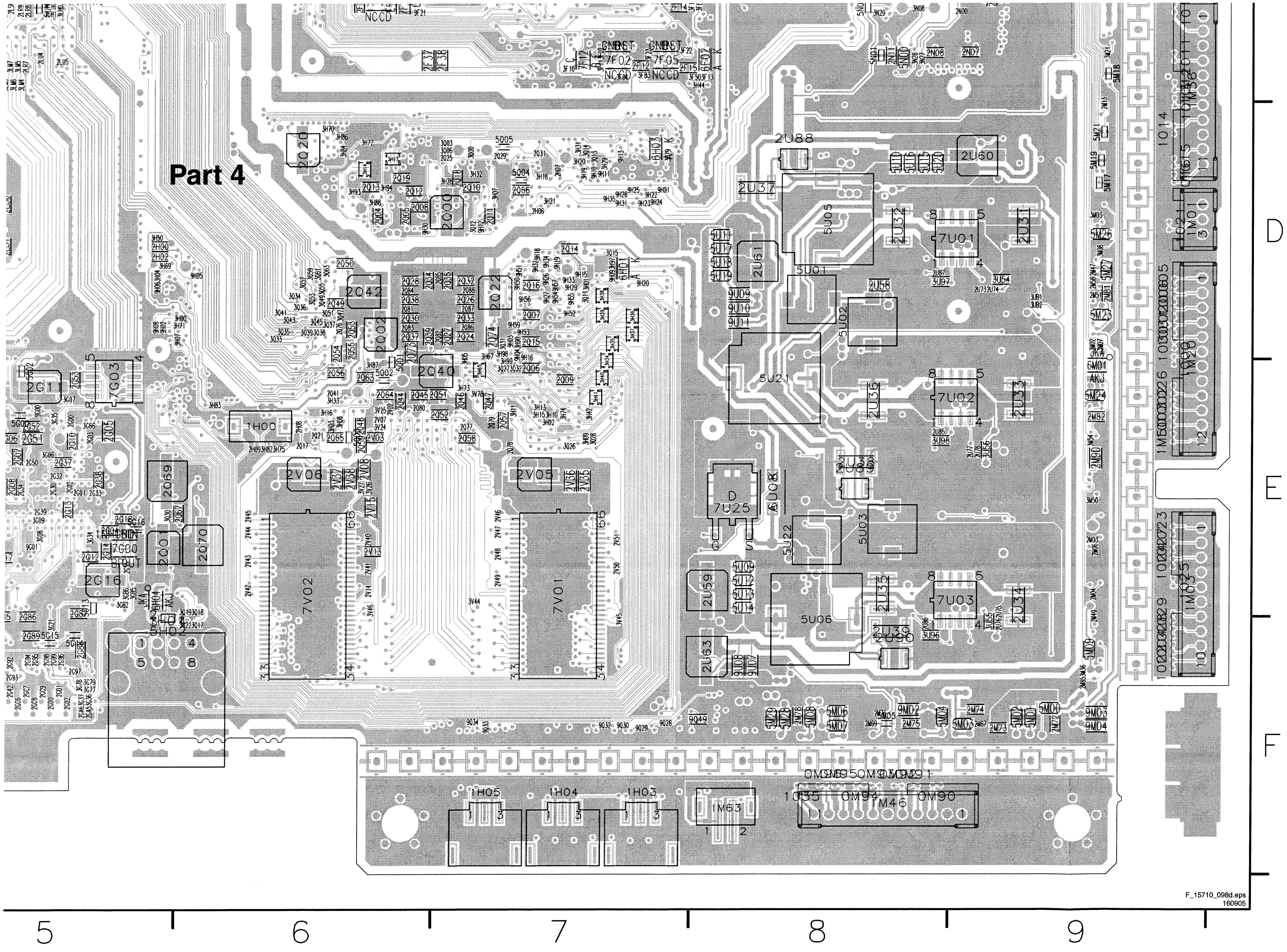
2A29
2A45
2A25
1A33
7R04
2R34
2R75
2R46
2RA2
2RA8
7GA5
7G01
1G02
2G54
2G25
2G11
1M52
1M49
1017
1018
1019
1009
1007
1008
1D40
D
E
F
1
2
3
4
5

F_15710_098c.eps
160905

Layout SSB (v3) (Part 4 Top Side)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D
E
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7G00
5U05
5U06
5U21
5U01
5U02
5U03
5U22
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2U60
2U37
2U61
2U59
2U63
2Q20
2Q00
2Q42
2Q02
2Q40
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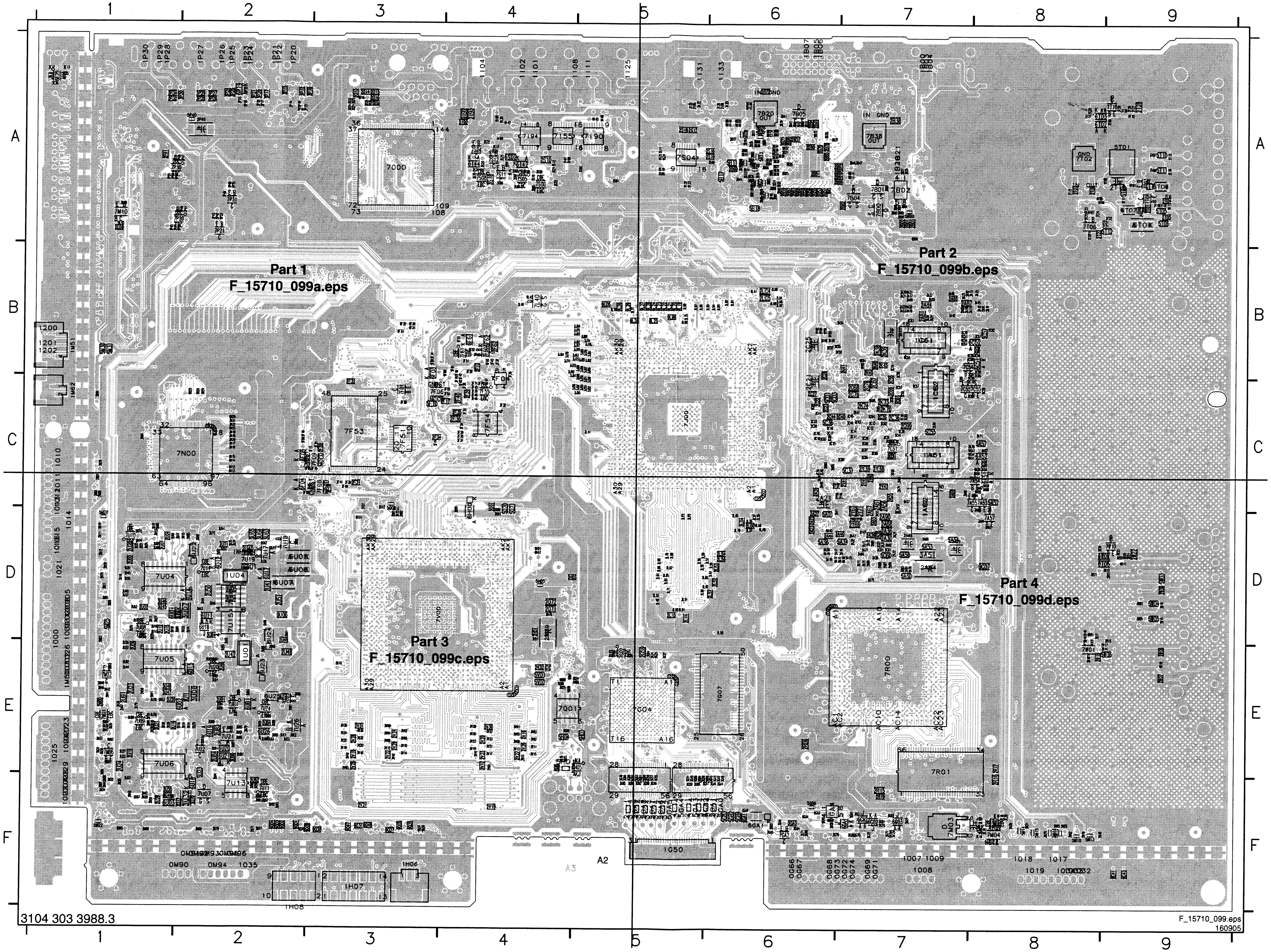
F_15710_098d.eps
160905

Layout SSB (v3) (Overview Bottom Side)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C
D
E
F
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Part 2
F_15710_099b.eps
Part 3
F_15710_099c.eps
Part 4
F_15710_099d.eps
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7400
7U00
7R00
7R01
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7607
1050
1H07
1H08
1H06
3104 303 3988.3

F_15710_099.eps
160905

Mapping SSB (v3) (Bottom Side)

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1H07 F3
1H08 F2
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131004

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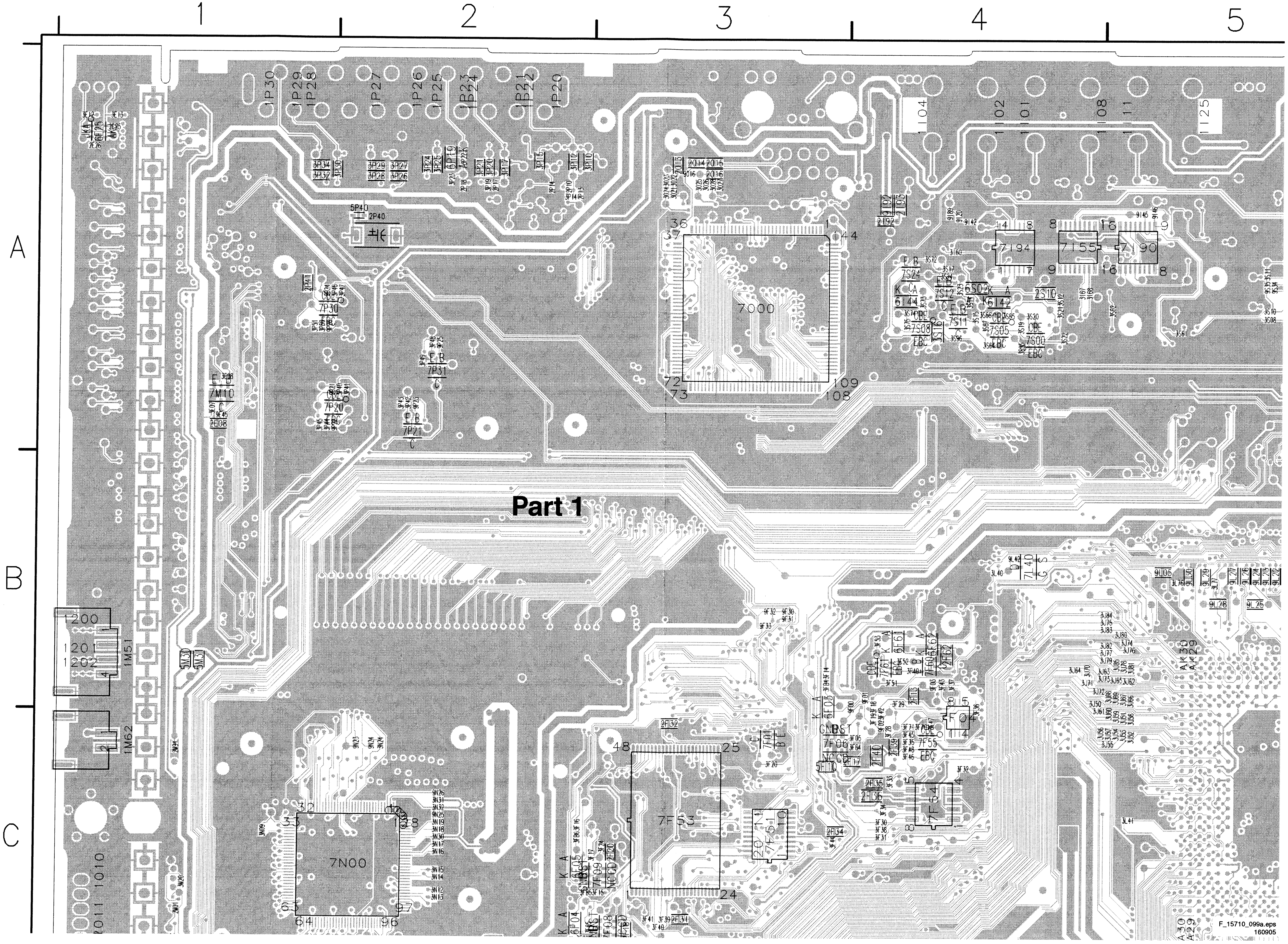
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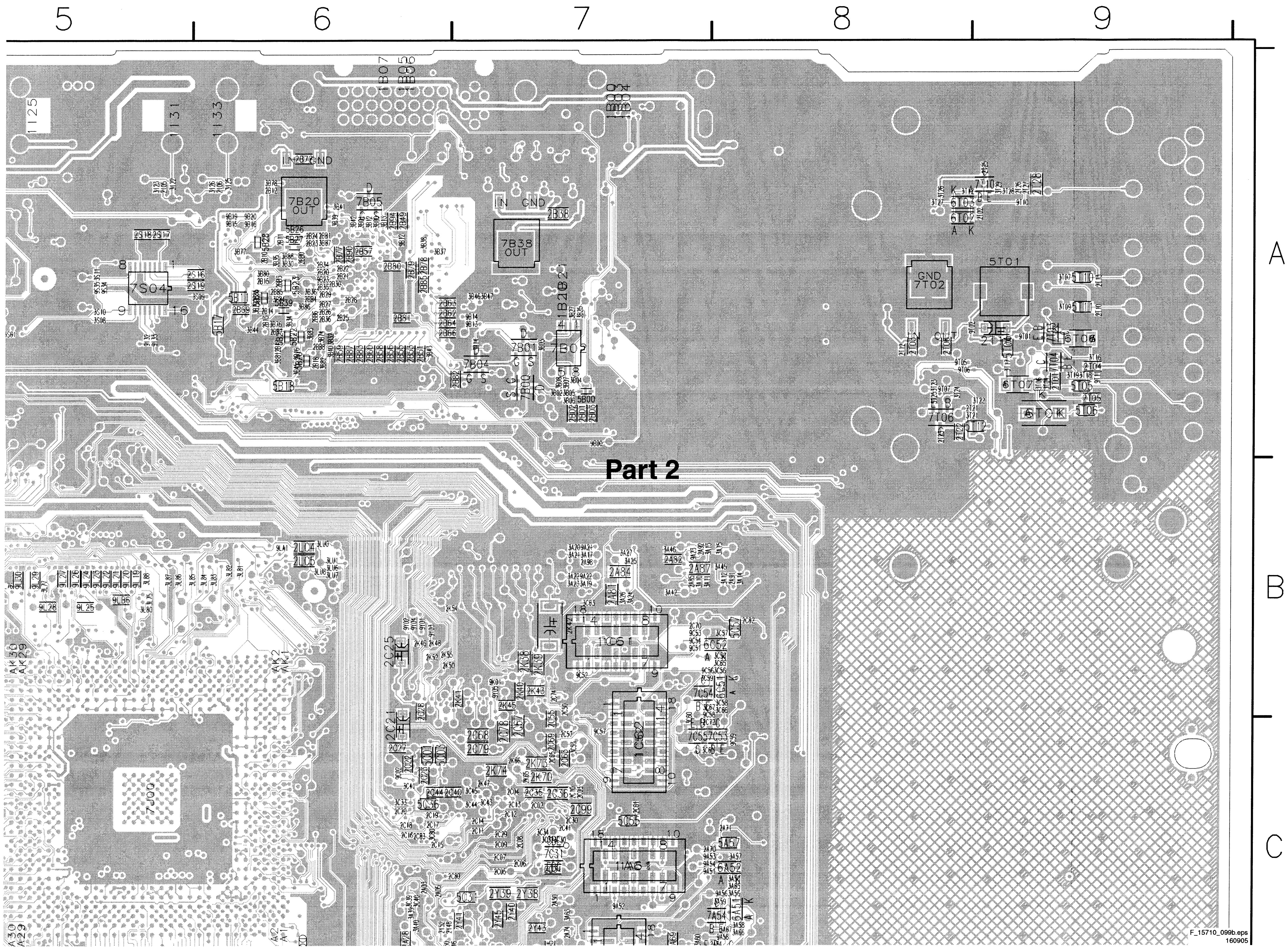
160905

Layout SSB (v3) (Part 2 Bottom Side)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C
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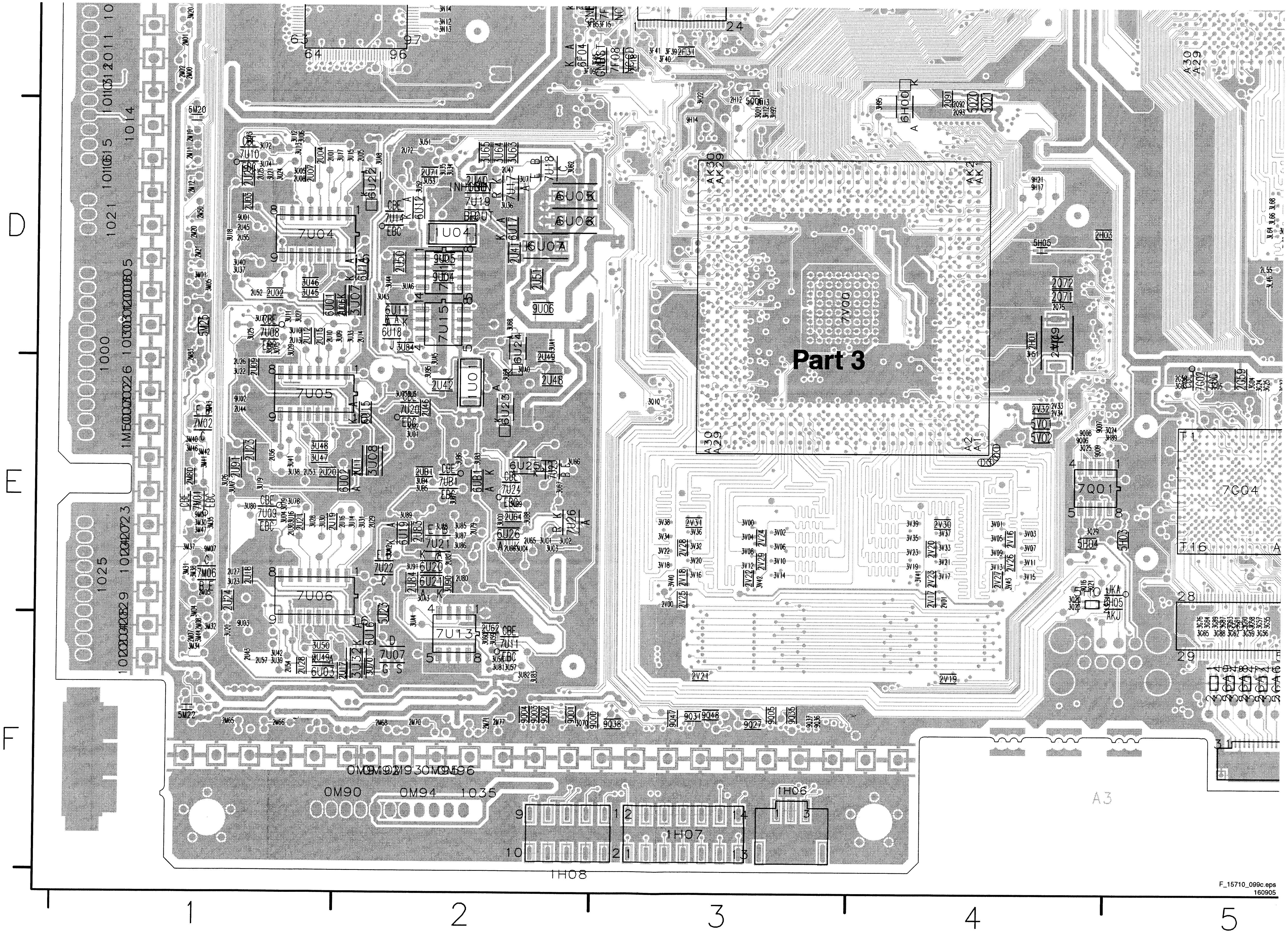
160905

Layout SSB (v3) (Part 3 Bottom Side)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1000
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160905

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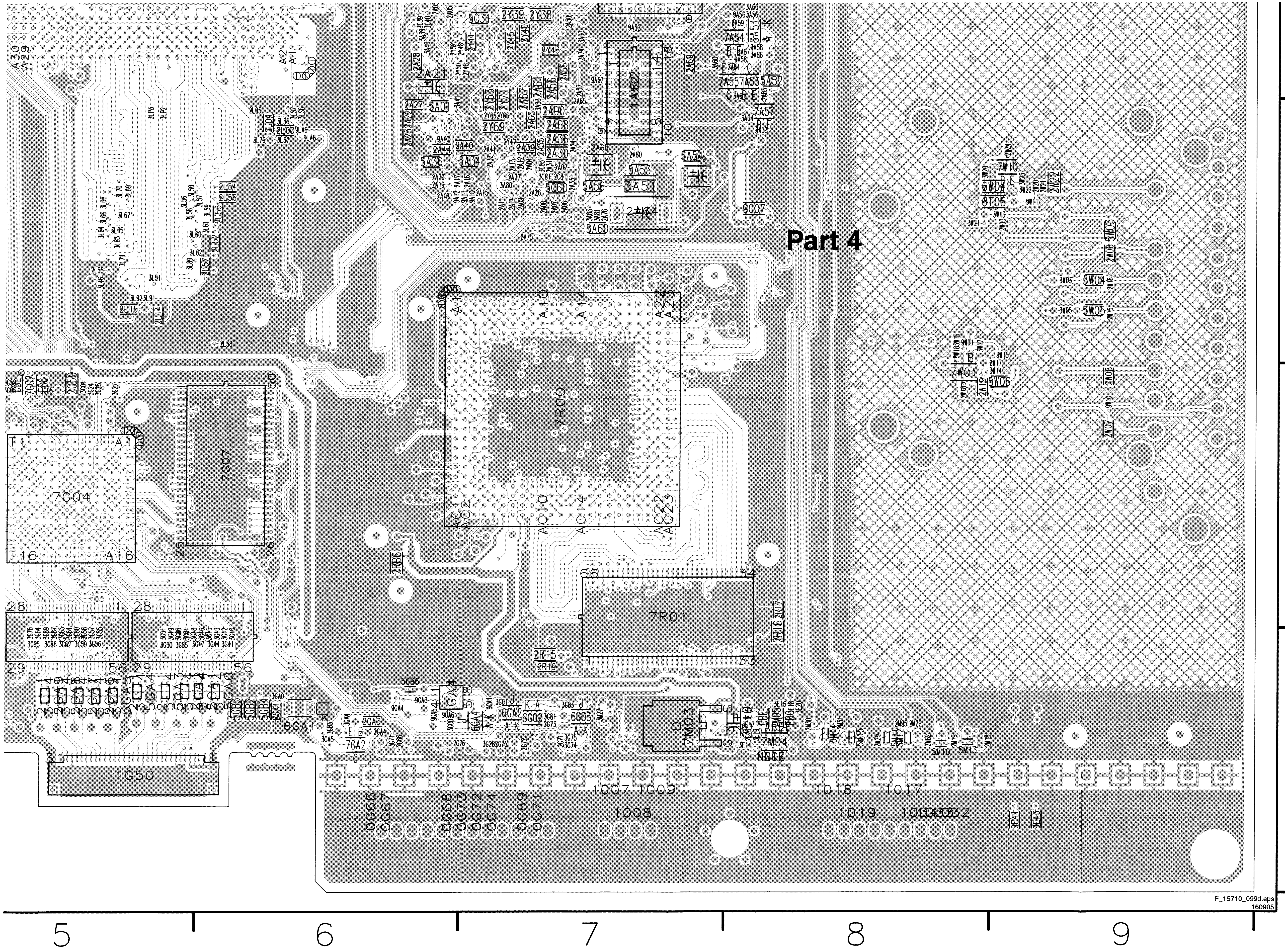
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5C31
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2Y38
2A21
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5A36
5A34
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2L14
2L52
2L53
2L54
2L56
2L57
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2R15
2R19
2R16
2R17
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6G03
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2GA3
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A23
AC1
AC2
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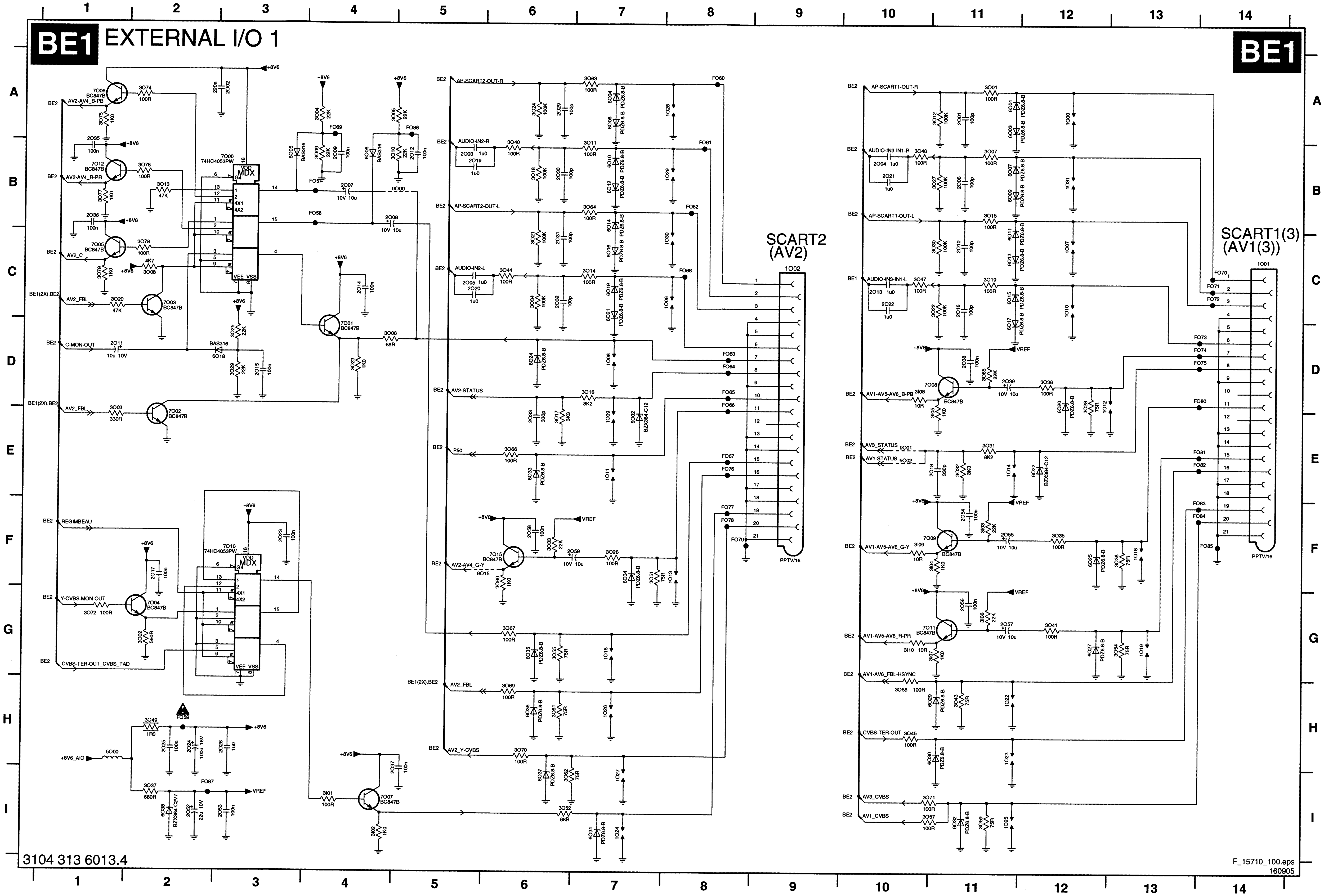
9

External I/O part 1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7010 74HC4053PW
MDX
BC847B
AV2-AV4_B-PB
AV2-AV4_R-PR
AV2_C
AV2_FBL
C-MON-OUT
REGIMBEAU
Y-CVBS-MON-OUT
CVBS-TER-OUT_CVBS_TAD
+8V6_AIO
+8V6
VREF
AP-SCART2-OUT-R
AUDIO-IN2-R
AP-SCART2-OUT-L
AUDIO-IN2-L
AV2-STATUS
P50
AV2-AV4_G-Y
AV2_Y-CVBS
AP-SCART1-OUT-R
AUDIO-IN3-IN1-R
AP-SCART1-OUT-L
AUDIO-IN3-IN1-L
AV1-AV5-AV6_B-PB
AV3_STATUS
AV1-STATUS
AV1-AV5-AV6_G-Y
AV1-AV5-AV6_R-PR
AV1-AV6_FBL-HSYNC
CVBS-TER-OUT
AV3_CVBS
AV1_CVBS
3104 313 6013.4
F_15710_100.eps
160905

1000	A12
1001	C14
1002	C9
1006	C8
1007	C12
1008	D7
1009	E7
1010	C12
1011	E7
1012	D12
1013	F8
1014	E11
1016	G7
1018	F13
1019	G13
1022	H11
1023	H11
1024	I7
1025	I11
1026	H7
1027	I7
1028	A8
1029	B8
1030	C8
1031	B12
2001	A11
2002	A3
2003	B5
2004	B10
2005	C5
2006	B11
2007	B4
2008	B4
2009	B4
2010	C11
2011	D1
2012	B5
2013	C10
2014	C4
2015	D3
2016	C11
2017	F2
2018	E11
2019	B5
2020	C5
2021	B10
2022	C10
2023	F3
2024	H2
2025	H2
2026	H3
2029	A6
2030	B6
2031	C6
2032	C6
2033	E6
2035	B1
2036	B1
2037	I5
2038	D11
2039	D11
2052	I2
2053	I3
2054	F11
2055	F11
2056	G11
2057	G11
2058	F6
2059	F7
3101	I4
3102	I4
3103	F11
3104	F11
3105	E11
3106	G11
3107	G11
3108	D10
3109	F10
3110	G10
3001	A11
3002	G2
3003	E1
3004	A4
3005	A4
3006	D4
3007	B11
3008	C2
3009	B4
3010	B4
3011	B7
3012	A11
3013	B2
3014	C7
3015	B11
3016	D7
3017	E6
3018	B6
3019	C11
3020	C1
3021	C6
3022	C11
3023	D4
3024	A6
3025	D3
3026	F7
3027	B11
3028	D12
3029	D3
3030	C11
3031	E11
3032	E11
3033	F6
3034	C6
3035	F12
3036	D12
3037	I2
3038	F13
3040	B6
3041	G12
3043	H11
3044	C6
3045	H10
3046	B10
3047	C10
3049	H2
3051	F7
3052	I6
3054	G13
3055	G6
3057	I11
3059	I11
3060	F6
3061	H6
3062	I6
3063	A7
3064	B7
3065	D11
3066	E6
3067	G6
3068	H10
3069	H6
3070	H6
3071	I11
3072	G1
3074	A2
3075	A1
3076	B2
3077	B1
3078	C2
3079	C1
5000	H1
6001	A11
6002	E7
6003	A11
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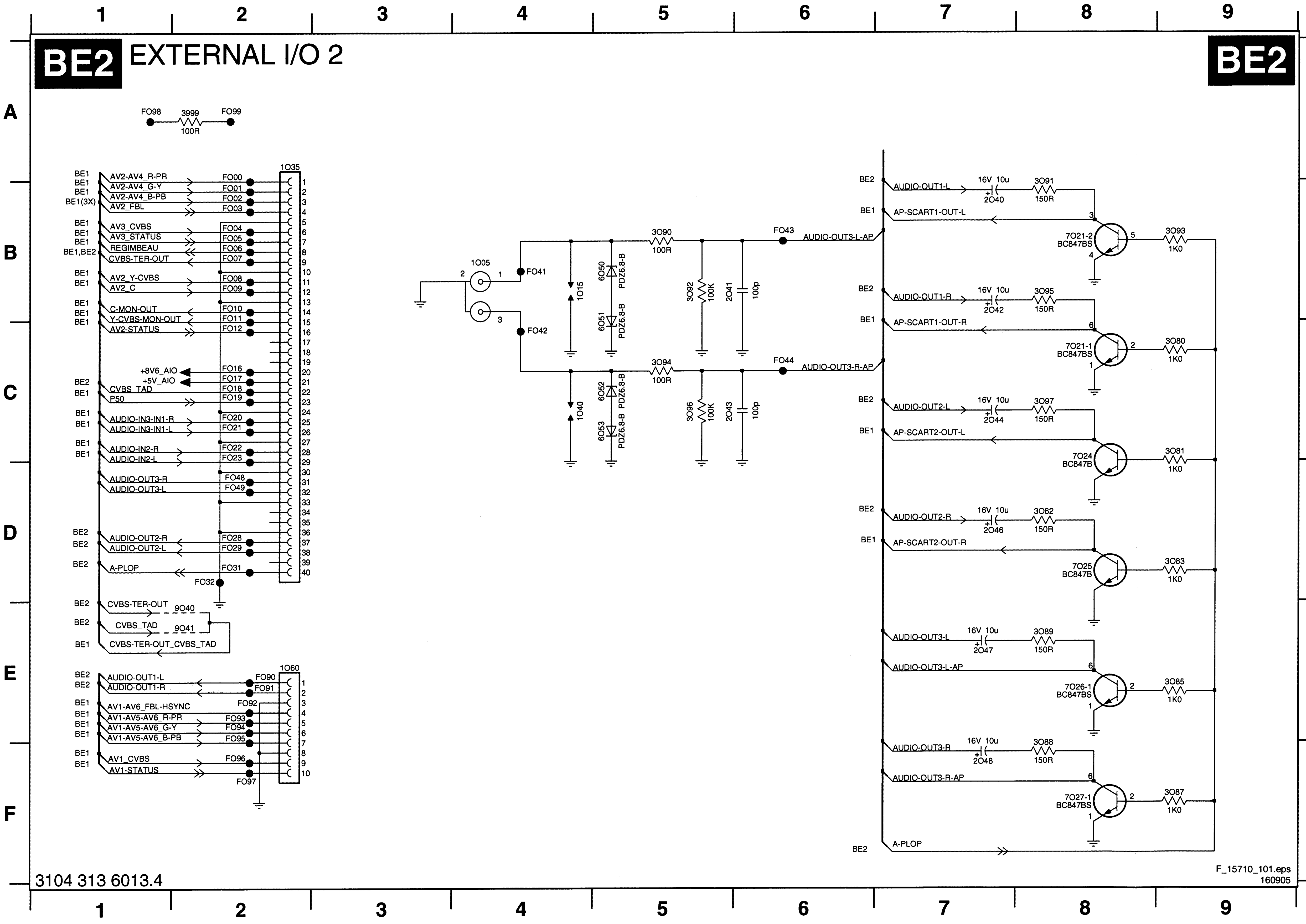
6005	B3
6006	B4
6007	B11
6008	A7
6009	B11
6010	B7
6011	C11
6012	B7
6013	C11
6014	B7
6015	C11
6016	C7
6017	D11
6018	D3
6019	C7
6020	D12
6021	C7
6022	E12
6024	D6
6025	F12
6027	G12
6029	H11
6030	H11
6031	I7
6032	I11
6033	E6
6034	F7
6035	G6
6036	H6
6037	I6
6038	I2
7000	B3
7001	D4
7002	E2
7003	C2
7004	G2
7005	C1
7006	A1
7007	I4
7008	D11
7009	F11
7010	F3
7011	G11
7012	B1
7015	F6
9000	B5
9001	E10
9002	E10
9015	F6
F057	B4
F058	B4
F059	H2
F060	A8
F061	B8
F062	B8
F063	D8
F064	D8
F065	D8
F066	D8
F067	E8
F068	C8
F069	A4
F070	C14
F071	C14
F072	C14
F073	D14
F074	D14
F075	D14
F076	E8
F077	F8
F078	F8
F079	F8
F080	D14
F081	E14
F082	E14
F083	F14
F084	F14
F085	F14
F086	A5
F087	I2

External I/O part 2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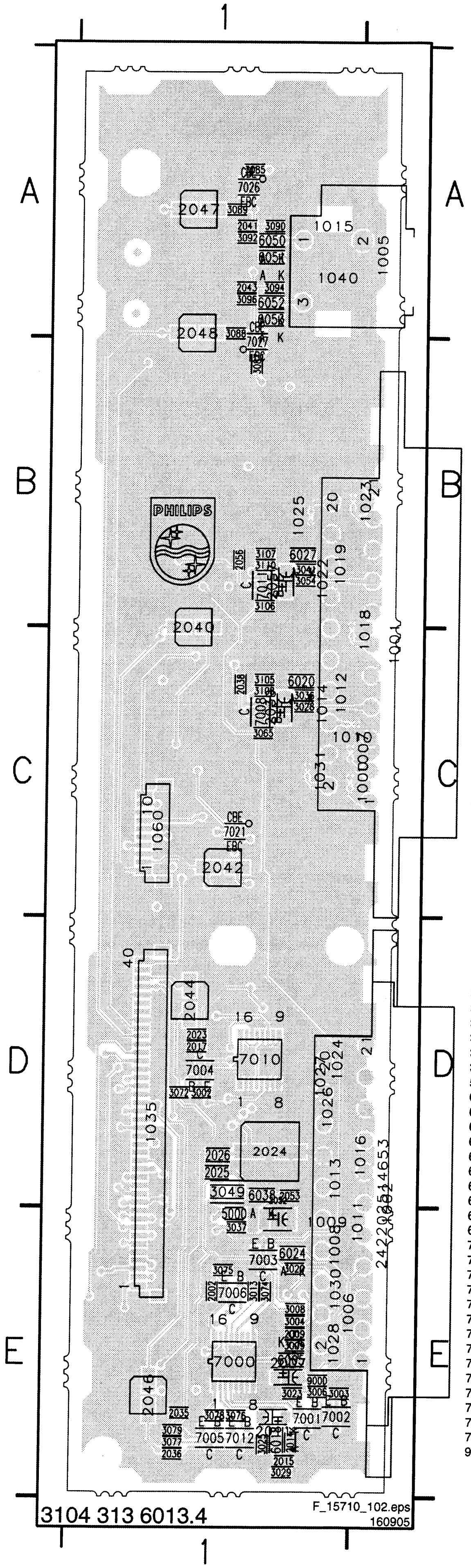
EXTERNAL I/O 2
BE2
1 2 3 4 5 6 7 8 9
A B C D E F
FO98 3999 100R FO99
1035
BE1 AV2-AV4_R-PR FO00 1
BE1 AV2-AV4_G-Y FO01 2
BE1 AV2-AV4_B-PB FO02 3
BE1(3X) AV2_FBL FO03 4
BE1 AV3_CVBS FO04 6
BE1 AV3_STATUS FO05 7
BE1,BE2 REGIMBEAU FO06 8
CVBS-TER-OUT FO07 9
BE1 AV2_Y-CVBS FO08 11
BE1 AV2_C FO09 12
BE1 C-MON-OUT FO10 14
BE1 Y-CVBS-MON-OUT FO11 15
BE1 AV2-STATUS FO12 16
+8V6_AIO FO16 20
+5V_AIO FO17 21
BE2 CVBS_TAD FO18 22
BE1 P50 FO19 23
BE1 AUDIO-IN3-IN1-R FO20 25
BE1 AUDIO-IN3-IN1-L FO21 26
BE1 AUDIO-IN2-R FO22 28
BE1 AUDIO-IN2-L FO23 29
AUDIO-OUT3-R FO48 31
AUDIO-OUT3-L FO49 32
BE2 AUDIO-OUT2-R FO28 37
BE2 AUDIO-OUT2-L FO29 38
BE2 A-PLOP FO31 40
FO32
BE2 CVBS-TER-OUT 9040
BE2 CVBS_TAD 9041
BE1 CVBS-TER-OUT_CVBS_TAD
1060
BE2 AUDIO-OUT1-L FO90 1
BE2 AUDIO-OUT1-R FO91 2
BE1 AV1-AV6_FBL-HSYNC FO92 3
BE1 AV1-AV5-AV6_R-PR FO93 4
BE1 AV1-AV5-AV6_G-Y FO94 5
BE1 AV1-AV5-AV6_B-PB FO95 6
BE1 AV1_CVBS FO96 8
BE1 AV1-STATUS FO97 9
1005 2 1 3
FO41 FO42
1015 1040
6050 PDZ6.8-B
6051 PDZ6.8-B
6052 PDZ6.8-B
6053 PDZ6.8-B
3090 100R
3094 100R
3092 100K
3096 100K
2041 100p
2043 100p
FO43 AUDIO-OUT3-L-AP
FO44 AUDIO-OUT3-R-AP
BE2 AUDIO-OUT1-L 16V 10u 2040 3091 150R
BE1 AP-SCART1-OUT-L
7021-2 BC847BS 3093 1K0
BE2 AUDIO-OUT1-R 16V 10u 2042 3095 150R
BE1 AP-SCART1-OUT-R
7021-1 BC847BS 3080 1K0
BE2 AUDIO-OUT2-L 16V 10u 2044 3097 150R
BE1 AP-SCART2-OUT-L
7024 BC847B 3081 1K0
BE2 AUDIO-OUT2-R 16V 10u 2046 3082 150R
BE1 AP-SCART2-OUT-R
7025 BC847B 3083 1K0
AUDIO-OUT3-L 16V 10u 2047 3089 150R
AUDIO-OUT3-L-AP
7026-1 BC847BS 3085 1K0
AUDIO-OUT3-R 16V 10u 2048 3088 150R
AUDIO-OUT3-R-AP
7027-1 BC847BS 3087 1K0
BE2 A-PLOP
3104 313 6013.4
F_15710_101.eps
160905

1005	B4
1015	B4
1035	A2
1040	C4
1060	E2
2040	B7
2041	B5
2042	B7
2043	C5
2044	C7
2046	D7
2047	E7
2048	F7
3999	A2
3080	C9
3081	C9
3082	D8
3083	D9
3085	E9
3087	F9
3088	F8
3089	E8
3090	B5
3091	B8
3092	B5
3093	B9
3094	C5
3095	B8
3096	C5
3097	C8
6050	B5
6051	C5
6052	C5
6053	C5
7021-1	C8
7021-2	B8
7024	C8
7025	D8
7026-1	E8
7027-1	F8
9040	E2
9041	E2
F000	A2
F001	B2
F002	B2
F003	B2
F004	B2
F005	B2
F006	B2
F007	B2
F008	B2
F009	B2
F010	B2
F011	B2
F012	C2
F016	C2
F017	C2
F018	C2
F019	C2
F020	C2
F021	C2
F022	C2
F023	C2
F028	D2
F029	D2
F031	D2
F032	D2
F041	B4
F042	C4
F043	B6
F044	C6
F048	D2
F049	D2
F090	E2
F091	E2
F092	E2
F093	E2
F094	E2
F095	E2
F096	F2
F097	F2
F098	A1
F099	A2

Layout External I/O Panel (Top Side)



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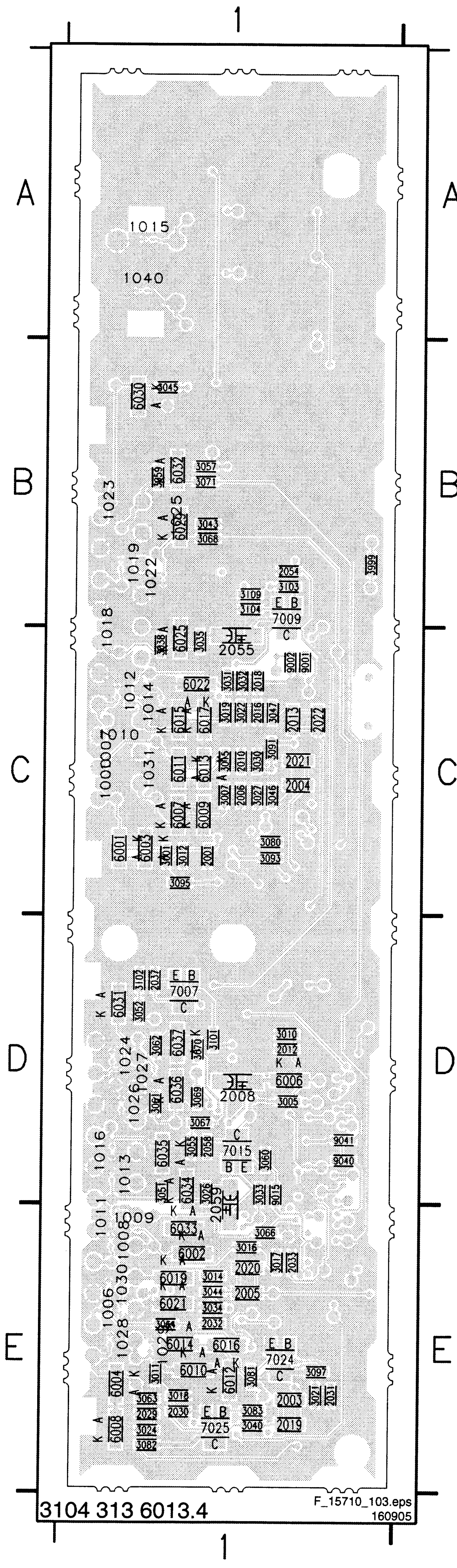
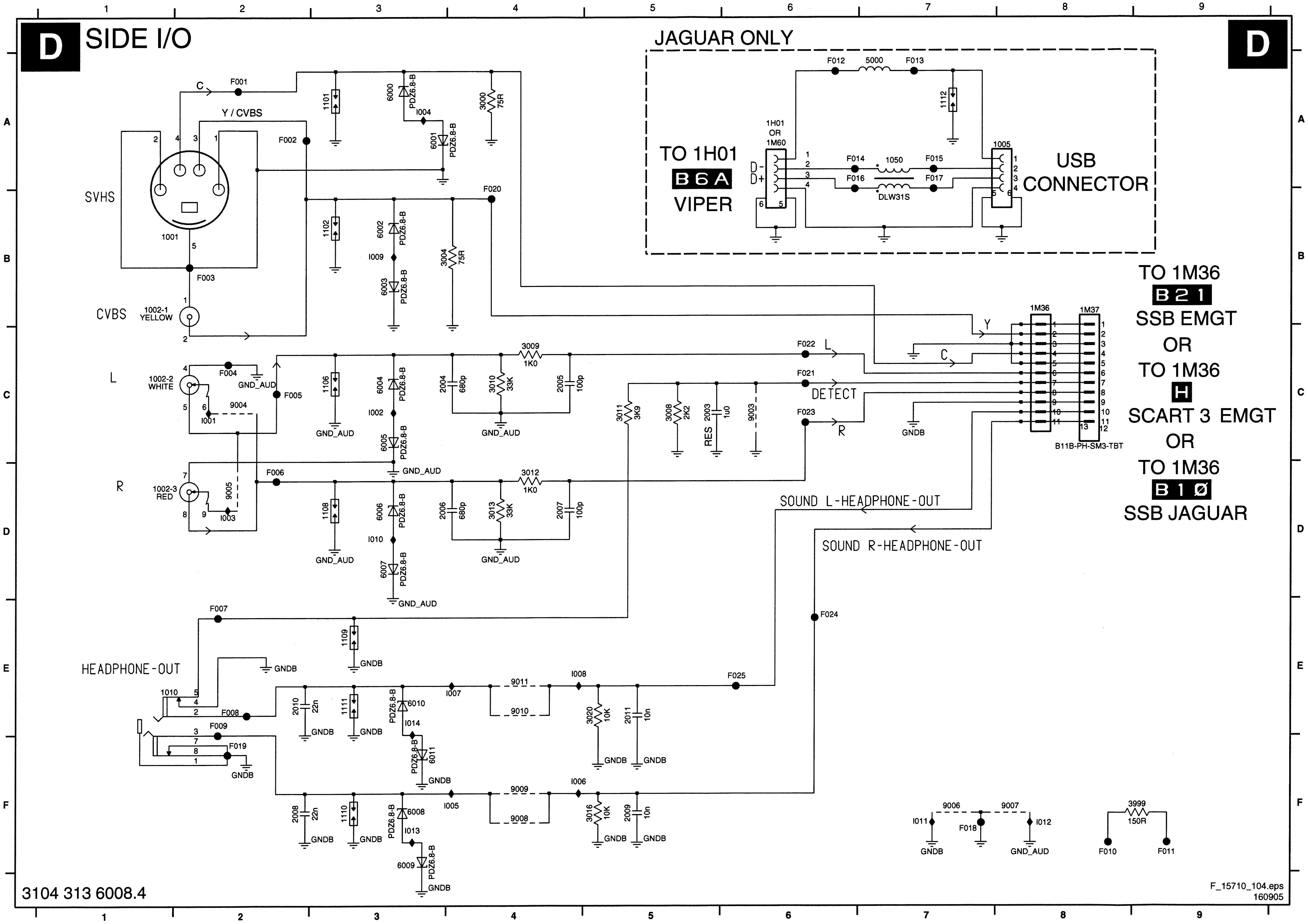
1002	D1
1005	A1
1035	D1
1060	C1
2002	E1
2007	E1
2009	E1
2011	E1
2014	E1
2015	E1
2017	D1
2023	D1
2024	D1
2025	D1
2026	D1
2035	E1
2036	E1
2038	C1
2039	C1
2040	B1
2041	A1
2042	C1
2043	A1
2044	D1
2046	E1
2047	A1
2048	A1
2052	D1
2053	D1
2056	B1
2057	B1
3105	C1
3106	B1
3107	B1
3108	C1
3110	B1
3002	D1
3003	E1
3004	E1
3006	E1
3008	E1
3009	E1
3013	E1
3020	E1
3023	E1
3025	E1
3028	C1
3029	E1
3036	C1
3037	E1
3041	B1
3049	D1
3054	B1
3065	C1
3072	D1
3074	E1
3075	E1
3076	E1
3077	E1
3078	E1
3079	E1
3085	A1
3087	B1
3088	A1
3089	A1
3090	A1
3092	A1
3094	A1
3096	A1
5000	E1
6005	E1
6018	E1
6020	C1
6024	E1
6027	B1
6038	D1
6050	A1
6051	A1
6052	A1
6053	A1
7000	E1
7001	E1
7002	E1
7003	E1
7004	D1
7005	E1
7006	E1
7008	C1
7010	D1
7011	B1
7012	E1
7021	C1
7026	A1
7027	B1
9000	E1

Layout External I/O Panel (Bottom Side)



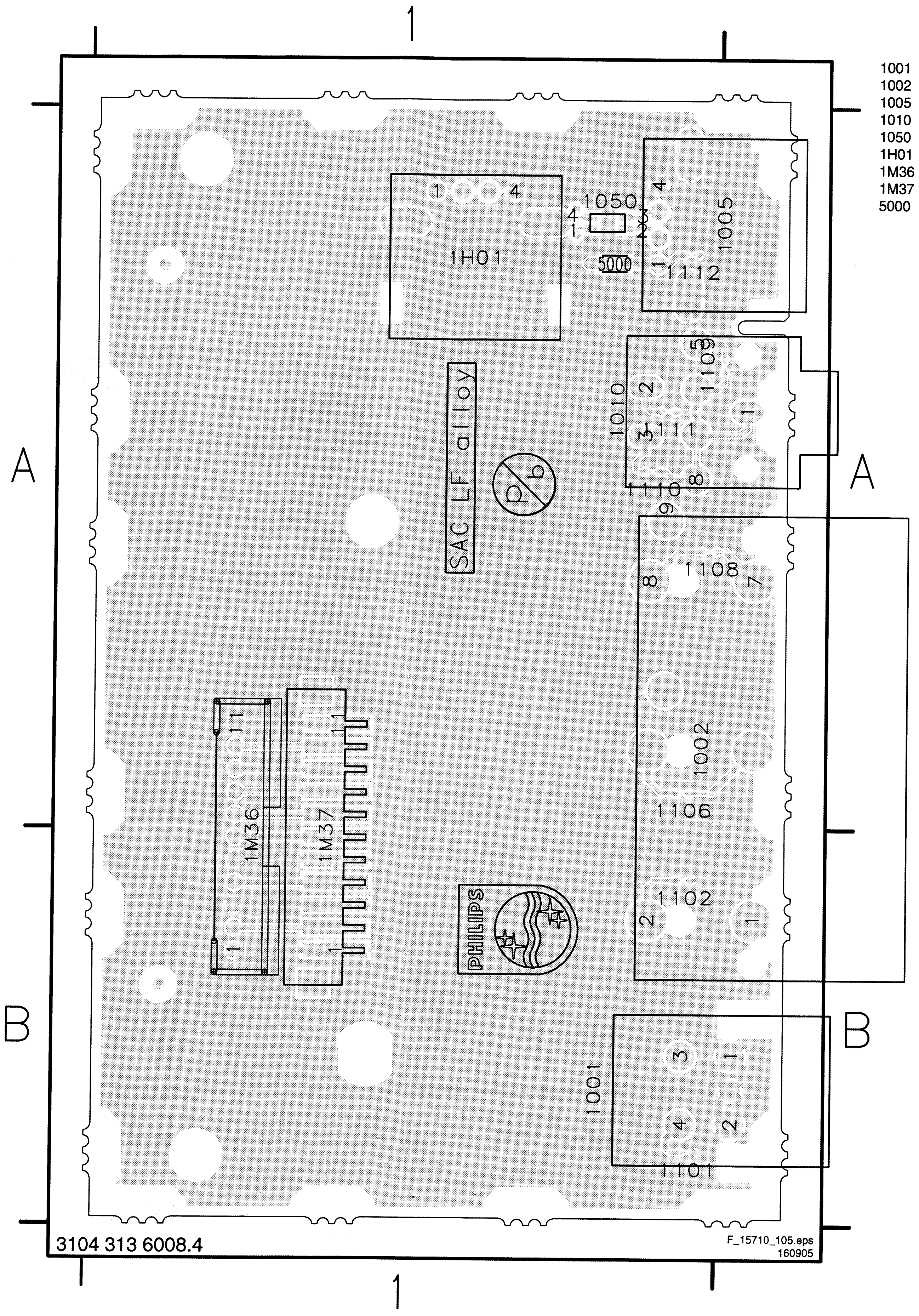
2001	C1
2003	E1
2004	C1
2005	E1
2006	C1
2008	D1
2010	C1
2012	D1
2013	C1
2016	C1
2018	C1
2019	E1
2020	E1
2021	C1
2022	C1
2029	E1
2030	E1
2031	E1
2032	E1
2033	E1
2037	D1
2054	B1
2055	C1
2058	D1
2059	D1
3999	B1
3101	D1
3102	D1
3103	B1
3104	B1
3109	B1
3001	C1
3005	D1
3007	C1
3010	D1
3011	E1
3012	C1
3014	E1
3015	C1
3016	E1
3017	E1
3018	E1
3019	C1
3021	E1
3022	C1
3024	E1
3026	D1
3027	C1
3030	C1
3031	C1
3032	C1
3033	D1
3034	E1
3035	C1
3038	C1
3040	E1
3043	B1
3044	E1
3045	B1
3046	C1
3047	C1
3051	D1
3052	D1
3055	D1
3057	B1
3059	B1
3060	D1
3061	D1
3062	D1
3063	E1
3064	E1
3066	E1
3067	D1
3068	B1
3069	D1
3070	D1
3071	B1
3080	C1
3081	E1
3082	E1
3083	E1
3091	C1
3093	C1
3095	C1
3097	E1
6001	C1
6002	E1
6003	C1
6004	E1
6006	D1
6007	C1
6008	E1
6009	C1
6010	E1
6011	C1
6012	E1
6013	C1
6014	E1
6015	C1
6016	E1
6017	C1
6019	E1
6021	E1
6022	C1
6025	C1
6029	B1
6030	B1
6031	D1
6032	B1
6033	E1
6034	D1
6035	D1
6036	D1
6037	D1
7007	D1
7009	B1
7015	D1
7024	E1
7025	E1
9001	C1
9002	C1
9015	D1
9040	D1
9041	D1

Side I/O Panel (v2)


D
SIDE I/O
JAGUAR ONLY
TO 1H01
B6A
VIPER
USB
CONNECTOR
1H01
OR
1M60
D-
D+
F012
5000
F013
1112
F014
1050
F015
F016
DLW31S
F017
1005
SVHS
1001
C
F001
Y / CVBS
F002
F003
CVBS
1002-1
YELLOW
1101
6000
PDZ6.8-B
I004
6001
3000
75R
F020
1102
6002
I009
6003
3004
75R
L
1002-2
WHITE
F004
GND_AUD
F005
I001
9004
R
1002-3
RED
9005
I003
F006
1106
6004
I002
6005
2004
680p
3010
33K
3009
1K0
2005
100p
1108
6006
I010
6007
2006
680p
3013
33K
3012
1K0
2007
100p
F022
F021
DETECT
F023
3011
3K9
3008
2K2
2003
1u0
RES
9003
GNDB
1M36
1M37
B11B-PH-SM3-TBT
Y
TO 1M36
B21
SSB EMGT
OR
TO 1M36
H
SCART 3 EMGT
OR
TO 1M36
B10
SSB JAGUAR
SOUND L-HEADPHONE-OUT
SOUND R-HEADPHONE-OUT
F007
1109
F024
HEADPHONE-OUT
1010
F008
F009
F019
F025
2010
22n
1111
6010
I014
6011
I007
9011
9010
I008
3020
10K
2011
10n
2008
22n
1110
6008
I013
6009
I005
9009
9008
I006
3016
10K
2009
10n
9006
9007
I011
F018
I012
3999
150R
F010
F011
3104 313 6008.4
F_15710_104.eps
160905

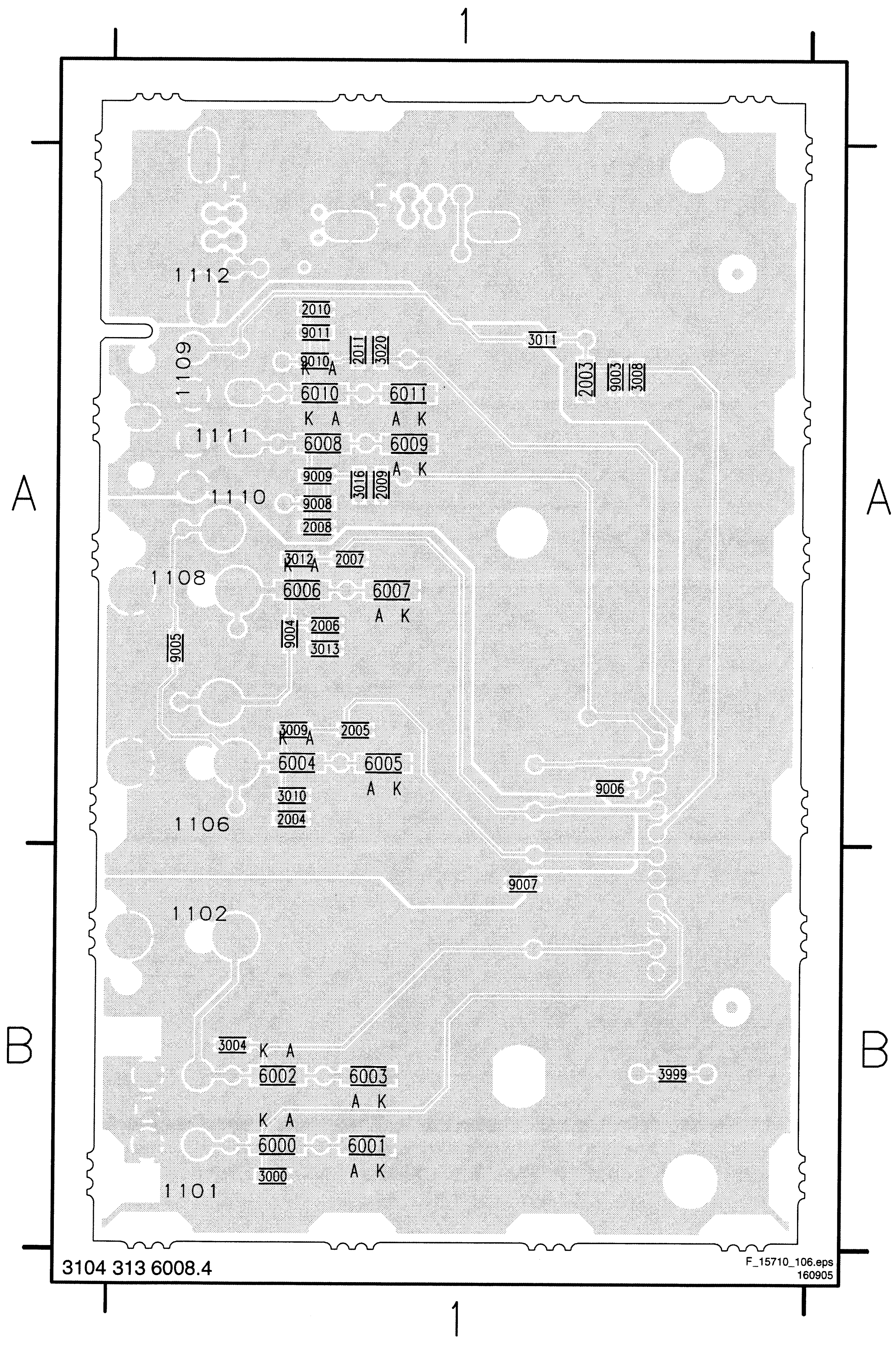
1001	B2
1002-1	B1
1002-2	C1
1002-3	D1
1005	A8
1010	E1
1050	A7
1101	A3
1102	B3
1106	C3
1108	D3
1109	E3
1110	F3
1111	E3
1112	A7
1H01	A6
1M36	B8
1M37	B8
2003	C5
2004	C3
2005	C4
2006	D3
2007	D4
2008	F2
2009	F5
2010	E2
2011	E5
3000	A4
3004	B3
3008	C5
3009	C4
3010	C4
3011	C5
3012	D4
3013	D4
3016	F5
3020	E5
3999	F9
5000	A7
6000	A3
6001	A3
6002	B3
6003	B3
6004	C3
6005	C3
6006	D3
6007	D3
6008	F3
6009	F3
6010	E3
6011	F3
9003	C6
9004	C2
9005	D2
9006	F7
9007	F8
9008	F4
9009	F4
9010	E4
9011	E4
F001	A2
F002	A2
F003	B2
F004	C2
F005	C2
F006	D2
F007	E2
F008	E2
F009	E2
F010	F8
F011	F9
F012	A6
F013	A7
F014	A6
F015	A7
F016	A6
F017	A7
F018	F7
F019	F2
F020	B4
F021	C6
F022	C6
F023	C6
F024	E6
F025	E6
I001	C2
I002	C3
I003	D2
I004	A3
I005	F4
I006	F4
I007	E4
I008	E4
I009	B3
I010	D3
I011	F7
I012	F8
I013	F3
I014	E3

Layout Side I/O Panel (v2) (Top Side)


1
A
B
1H01
1050
5000
1005
1112
1010
1111
1110
1109
1108
1106
1102
1002
1001
1101
1M36
1M37
SAC LF alloy
Pb
PHILIPS
3104 313 6008.4
F_15710_105.eps
160905

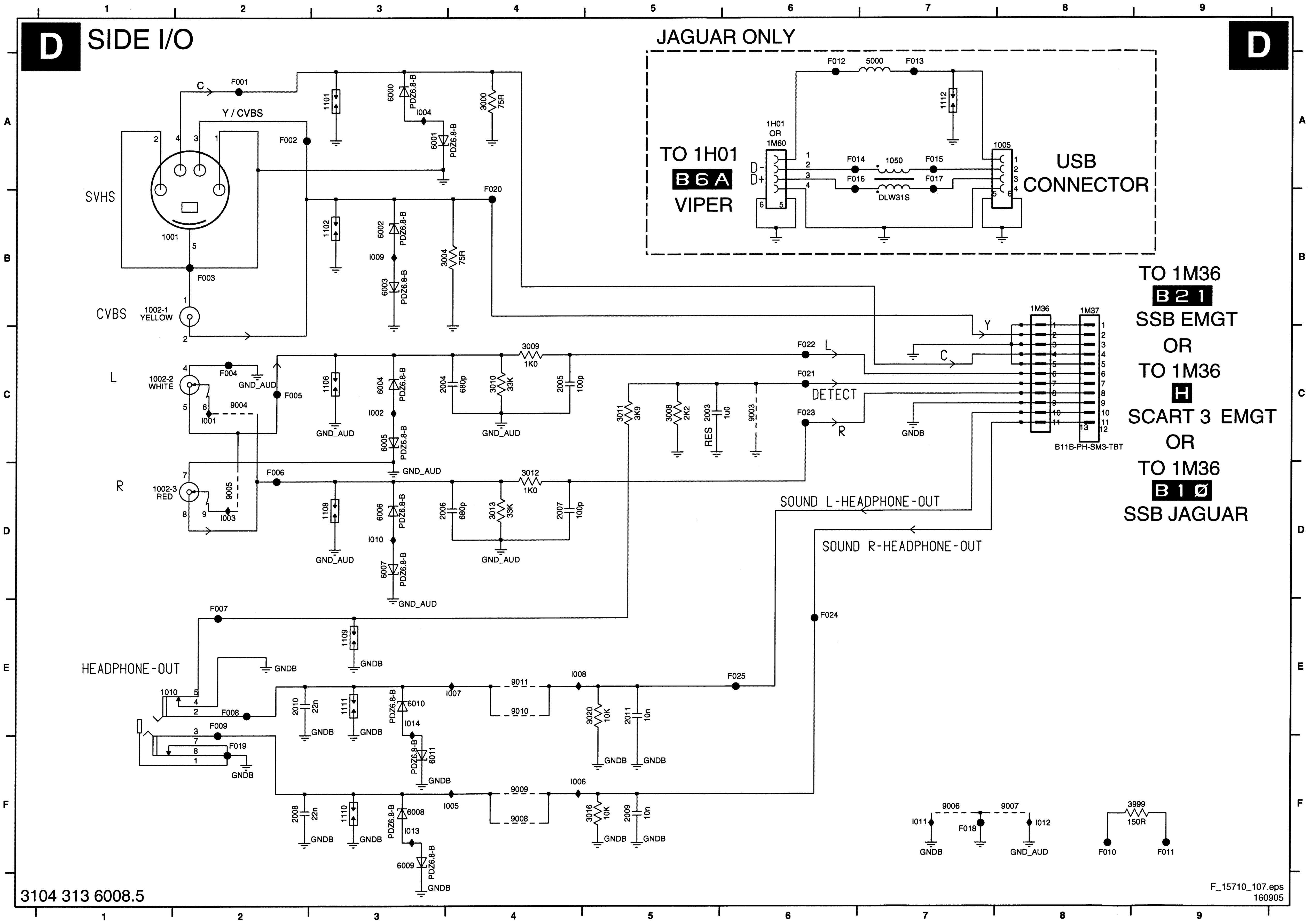
1001	B1
1002	A1
1005	A1
1010	A1
1050	A1
1H01	A1
1M36	B1
1M37	B1
5000	A1

Layout Side I/O Panel (v2) (Bottom Side)


1
A
B
1112
1109
1111
1110
1108
1106
1102
1101
2010
9011
9010
2011
3020
6010
6011
6008
6009
9009
3016
2009
9008
2008
3011
2003
9003
3008
3012
2007
6006
6007
9004
2006
3013
9005
3009
2005
6004
6005
3010
2004
9006
9007
3004
6002
6003
6000
6001
3000
3999
K A
A K
3104 313 6008.4
F_15710_106.eps
160905

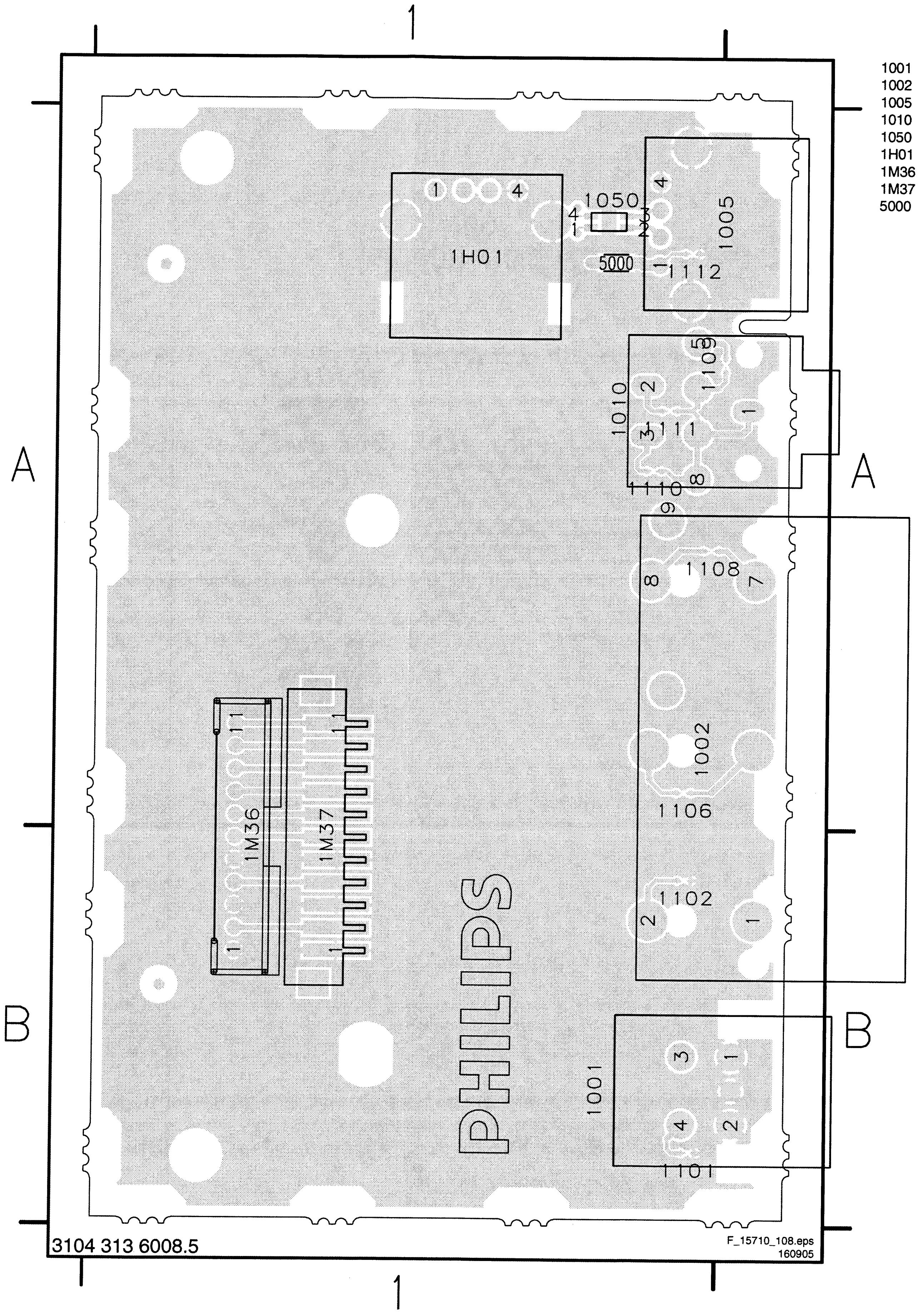
2003	A1
2004	A1
2005	A1
2006	A1
2007	A1
2008	A1
2009	A1
2010	A1
2011	A1
3000	B1
3004	B1
3008	A1
3009	A1
3010	A1
3011	A1
3012	A1
3013	A1
3016	A1
3020	A1
3999	B1
6000	B1
6001	B1
6002	B1
6003	B1
6004	A1
6005	A1
6006	A1
6007	A1
6008	A1
6009	A1
6010	A1
6011	A1
9003	A1
9004	A1
9005	A1
9006	A1
9007	B1
9008	A1
9009	A1
9010	A1
9011	A1

Side I/O Panel (v3)


D
SIDE I/O
JAGUAR ONLY
TO 1H01
B6A
VIPER
USB
CONNECTOR
1H01 OR 1M60
D-
D+
F012
5000
F013
1112
1005
F014
1050
F015
F016
DLW31S
F017
SVHS
C
F001
Y / CVBS
F002
1001
F003
CVBS
1002-1 YELLOW
1101
6000
PDZ6.8-B
I004
6001
3000
75R
F020
1102
6002
I009
6003
3004
75R
L
1002-2 WHITE
F004
GND_AUD
F005
I001
9004
R
1002-3 RED
9005
I003
F006
1106
6004
I002
6005
2004
680p
3010
33K
3009
1K0
2005
100p
1108
6006
I010
6007
2006
680p
3013
33K
3012
1K0
2007
100p
3011
3K9
3008
2K2
2003
1u0
RES
9003
F022
F021
DETECT
F023
GNDB
1M36
1M37
B11B-PH-SM3-TBT
Y
C
TO 1M36
B21
SSB EMGT
OR
TO 1M36
H
SCART 3 EMGT
OR
TO 1M36
B10
SSB JAGUAR
SOUND L-HEADPHONE-OUT
SOUND R-HEADPHONE-OUT
F007
1109
HEADPHONE-OUT
1010
F008
F009
F019
2010
22n
1111
6010
I014
6011
I007
9011
9010
I008
3020
10K
2011
10n
F025
F024
2008
22n
1110
6008
I013
6009
I005
9009
9008
I006
3016
10K
2009
10n
9006
9007
I011
F018
I012
3999
150R
F010
F011
3104 313 6008.5
F_15710_107.eps
160905

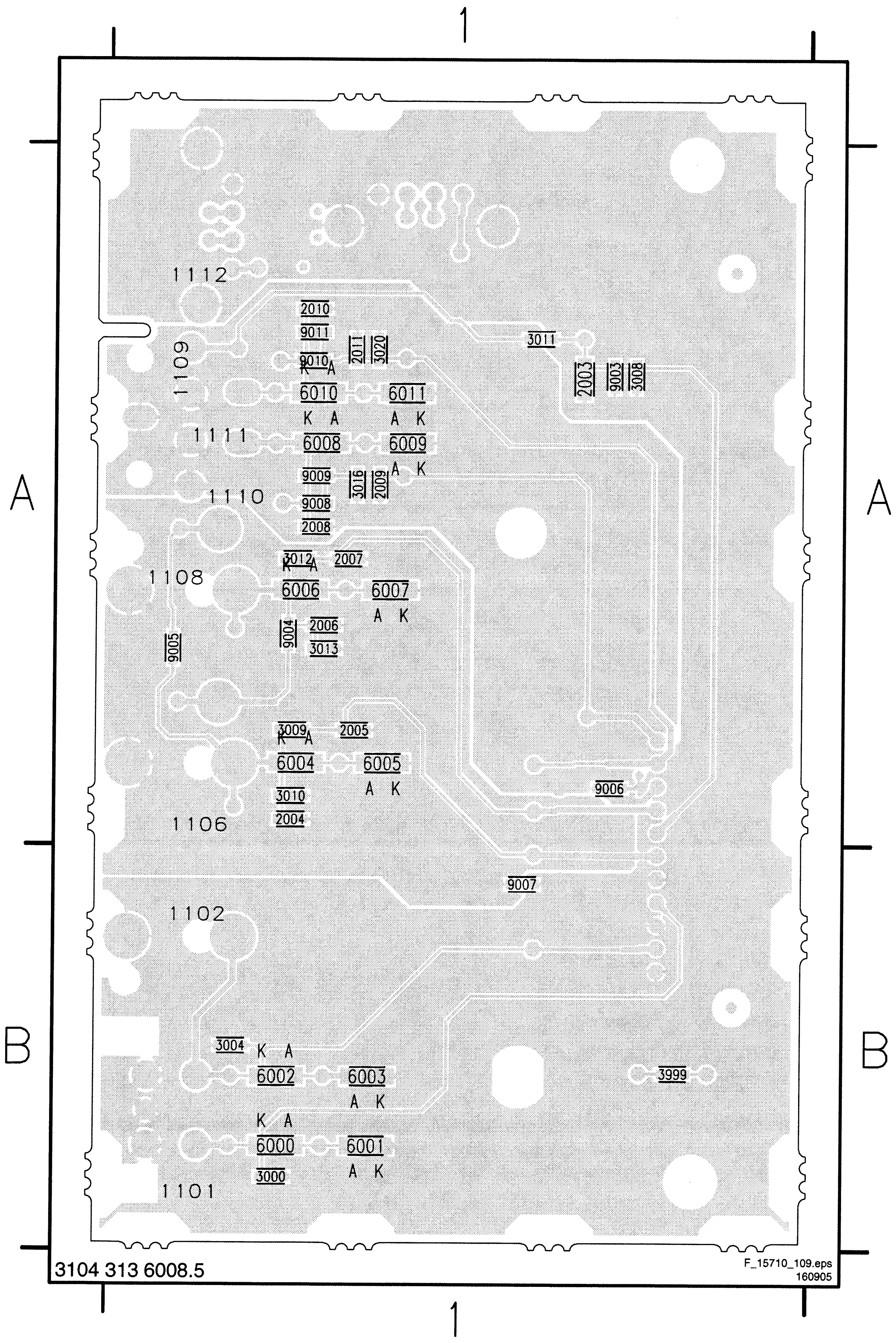
1001	B2
1002-1	B1
1002-2	C1
1002-3	D1
1005	A8
1010	E1
1050	A7
1101	A3
1102	B3
1106	C3
1108	D3
1109	E3
1110	F3
1111	E3
1112	A7
1H01	A6
1M36	B8
1M37	B8
2003	C5
2004	C3
2005	C4
2006	D3
2007	D4
2008	F2
2009	F5
2010	E2
2011	E5
3000	A4
3004	B3
3008	C5
3009	C4
3010	C4
3011	C5
3012	D4
3013	D4
3016	F5
3020	E5
3999	F9
5000	A7
6000	A3
6001	A3
6002	B3
6003	B3
6004	C3
6005	C3
6006	D3
6007	D3
6008	F3
6009	F3
6010	E3
6011	F3
9003	C6
9004	C2
9005	D2
9006	F7
9007	F8
9008	F4
9009	F4
9010	E4
9011	E4
F001	A2
F002	A2
F003	B2
F004	C2
F005	C2
F006	D2
F007	E2
F008	E2
F009	E2
F010	F8
F011	F9
F012	A6
F013	A7
F014	A6
F015	A7
F016	A6
F017	A7
F018	F7
F019	F2
F020	B4
F021	C6
F022	C6
F023	C6
F024	E6
F025	E6
I001	C2
I002	C3
I003	D2
I004	A3
I005	F4
I006	F4
I007	E4
I008	E4
I009	B3
I010	D3
I011	F7
I012	F8
I013	F3
I014	E3

Layout Side I/O Panel (v3) (Top Side)


1
A
B
1H01
1 4
1050
5000
1005
1112
1010
1109
1111
1110
1108
1002
1106
1102
1001
1101
1M36
1M37
PHILIPS
3104 313 6008.5
F_15710_108.eps
160905

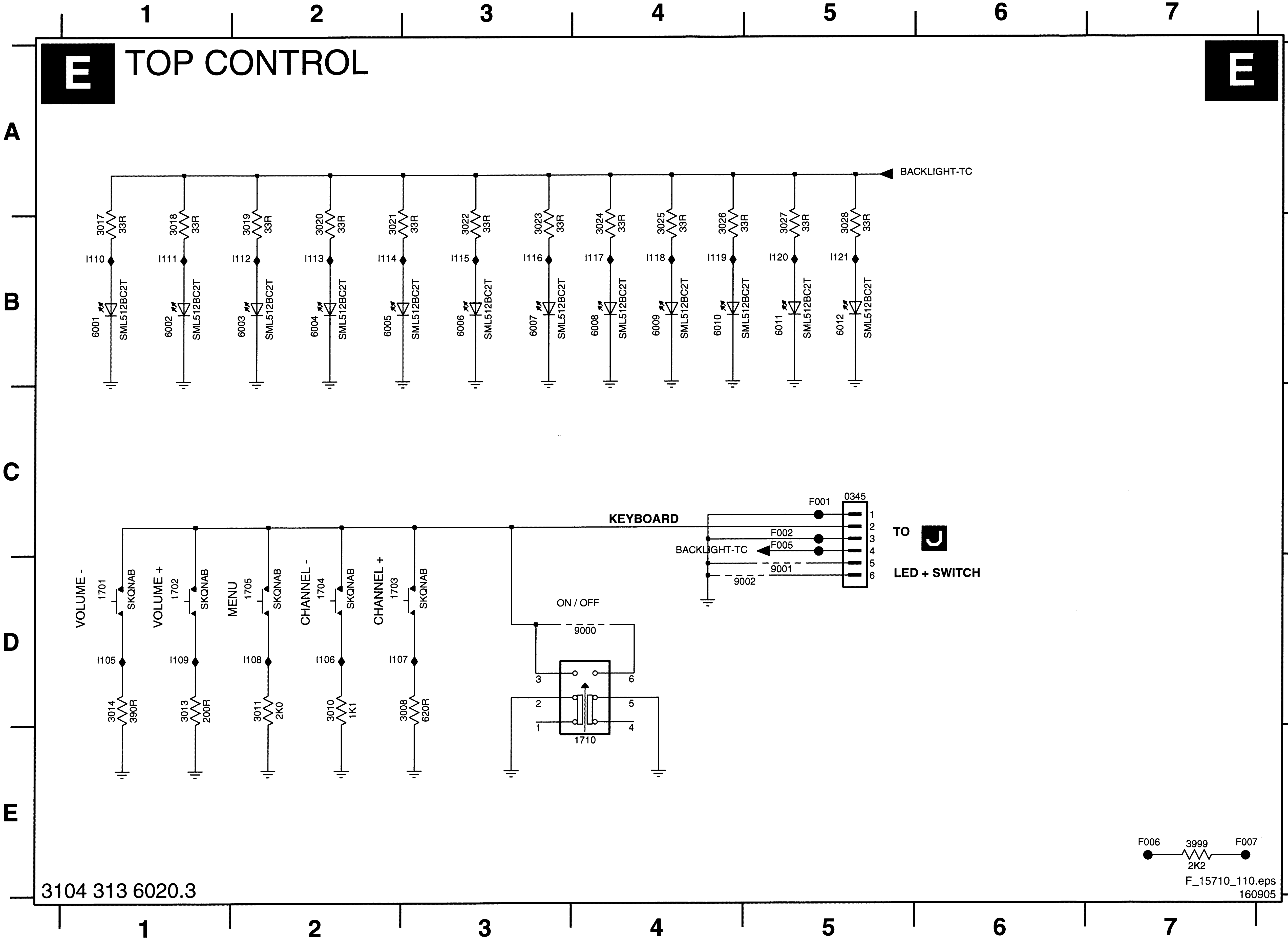
1001	B1
1002	A1
1005	A1
1010	A1
1050	A1
1H01	A1
1M36	B1
1M37	B1
5000	A1

Layout Side I/O Panel (v3) (Bottom Side)


1
A
B
1112
1109
1111
1110
1108
1106
1102
1101
2010
9011
9010
2011
3020
6010
6011
6008
6009
9009
3016
2009
9008
2008
3011
2003
9003
3008
3012
2007
6006
6007
9005
9004
2006
3013
3009
2005
6004
6005
3010
2004
9006
9007
3004
6002
6003
6000
6001
3000
3999
K A
A K
3104 313 6008.5
F_15710_109.eps
160905

1001	B1
1002	A1
1005	A1
1010	A1
1H01	A1
1M36	B1
2003	A1
2004	A1
2005	A1
2006	A1
2007	A1
2008	A1
2009	A1
2010	A1
2011	A1
3000	B1
3004	B1
3008	A1
3009	A1
3010	A1
3011	A1
3012	A1
3013	A1
3016	A1
3020	A1
3999	B1
6000	B1
6001	B1
6002	B1
6003	B1
6004	A1
6005	A1
6006	A1
6007	A1
6008	A1
6009	A1
6010	A1
6011	A1
9003	A1
9004	A1
9005	A1
9006	A1
9007	B1
9008	A1
9009	A1
9010	A1
9011	A1

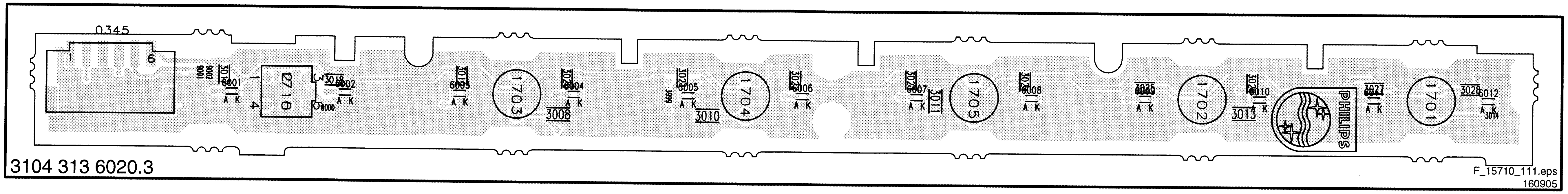
Control Board (Top Control)


E
TOP CONTROL
E
BACKLIGHT-TC
3017 33R
3018 33R
3019 33R
3020 33R
3021 33R
3022 33R
3023 33R
3024 33R
3025 33R
3026 33R
3027 33R
3028 33R
I110
I111
I112
I113
I114
I115
I116
I117
I118
I119
I120
I121
6001 SML512BC2T
6002 SML512BC2T
6003 SML512BC2T
6004 SML512BC2T
6005 SML512BC2T
6006 SML512BC2T
6007 SML512BC2T
6008 SML512BC2T
6009 SML512BC2T
6010 SML512BC2T
6011 SML512BC2T
6012 SML512BC2T
KEYBOARD
F001
0345
F002
F005
BACKLIGHT-TC
9001
9002
TO J
LED + SWITCH
VOLUME - 1701 SKQNAB
VOLUME + 1702 SKQNAB
MENU 1705 SKQNAB
CHANNEL - 1704 SKQNAB
CHANNEL + 1703 SKQNAB
I105
I109
I108
I106
I107
3014 390R
3013 200R
3011 2K0
3010 1K1
3008 620R
ON / OFF
9000
1710
F006
3999 2K2
F007
3104 313 6020.3
F_15710_110.eps
160905
A
B
C
D
E
1
2
3
4
5
6
7

0345	C5
1701	D1
1702	D1
1703	D2
1704	D2
1705	D2
1710	E4
3008	D3
3010	D2
3011	D2
3013	D1
3014	D1
3017	B1
3018	B1
3019	B2
3020	B2
3021	B2
3022	B3
3023	B3
3024	B4
3025	B4
3026	B4
3027	B5
3028	B5
3999	E7
6001	B1
6002	B1
6003	B2
6004	B2
6005	B2
6006	B3
6007	B3
6008	B4
6009	B4
6010	B4
6011	B5
6012	B5
9000	D4
9001	D5
9002	D5
F001	C5
F002	C5
F005	C5
F006	E7
F007	E7
I105	D1
I106	D2
I107	D2
I108	D2
I109	D1
I110	B1
I111	B1
I112	B2
I113	B2
I114	B2
I115	B3
I116	B3
I117	B4
I118	B4
I119	B4
I120	B5
I121	B5

Layout Control Board (Top Side)

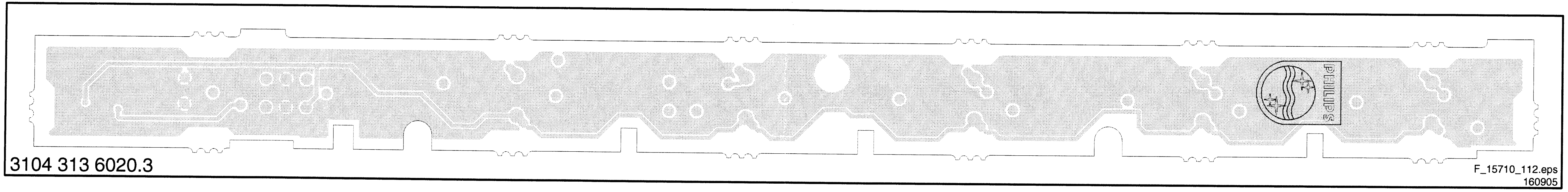
0345 --
1701 --
1702 --
1703 --
1704 --
1705 --
1710 --
3008 --
3010 --
3011 --
3013 --
3014 --
3017 --
3018 --
3019 --
3020 --
3021 --
3022 --
3023 --
3024 --
3025 --
3026 --
3027 --
3028 --
3999 --
6001 --
6002 --
6003 --
6004 --
6005 --
6006 --
6007 --
6008 --
6009 --
6010 --
6011 --
6012 --
9000 --
9001 --
9002 --


0345
1
6
9002
9001
6001
A K
1
4
1710
3
6002
8000
6003
1703
6004
3008
3999
6005
3010
1704
6006
6007
3011
1705
6008
1702
3013
6010
PHILIPS
6011
1701
3028
6012
3014

3104 313 6020.3

F_15710_111.eps
160905

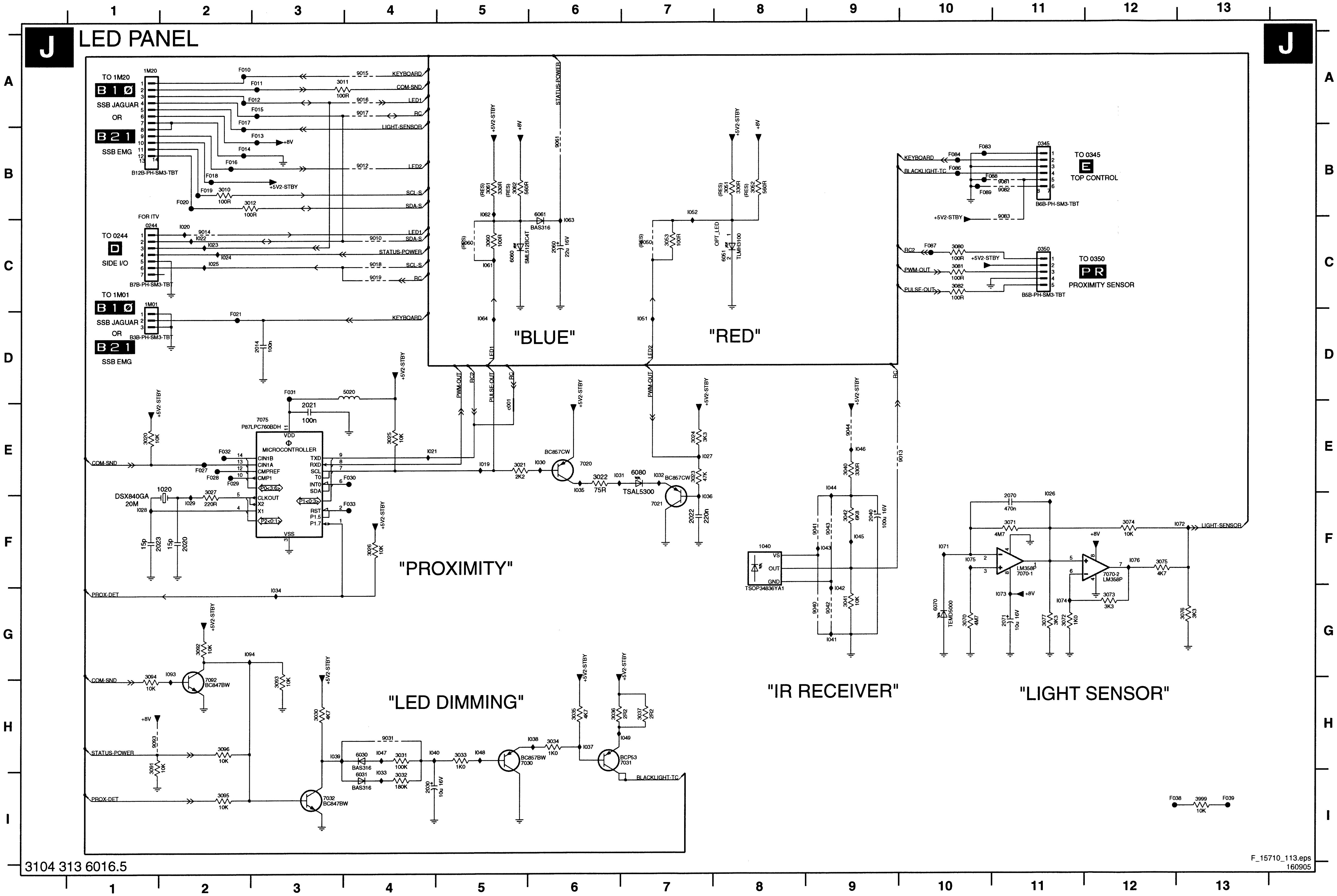
Layout Control Board (Bottom Side)



3104 313 6020.3

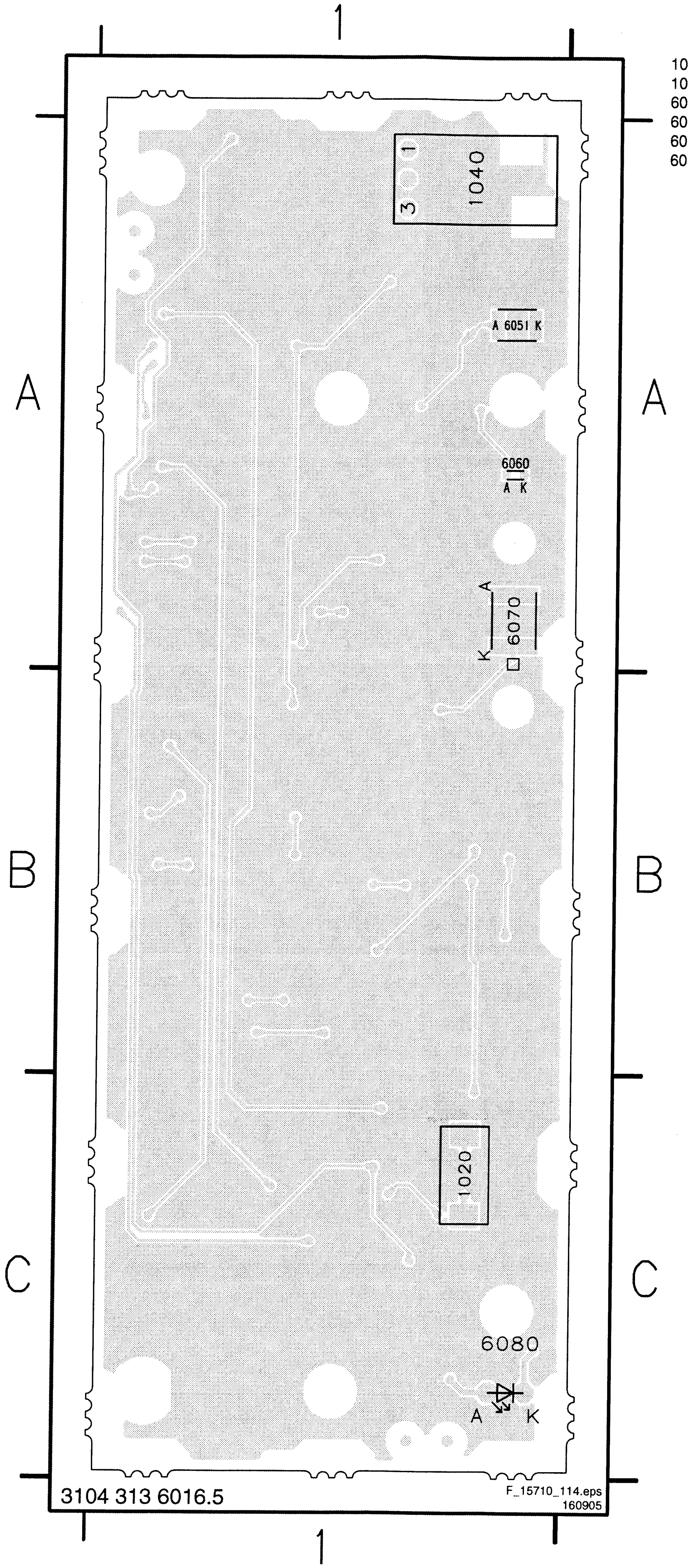
F_15710_112.eps
160905

LED Panel


J
LED PANEL
TO 1M20
B10
SSB JAGUAR
OR
B21
SSB EMG
B12B-PH-SM3-TBT
FOR ITV
TO 0244
D
SIDE I/O
B7B-PH-SM3-TBT
TO 1M01
B3B-PH-SM3-TBT
KEYBOARD
COM-SND
LED1
RC
LIGHT-SENSOR
LED2
SCL-S
SDA-S
STATUS-POWER
+5V2-STBY
+8V
"BLUE"
"RED"
TO 0345
E
TOP CONTROL
B6B-PH-SM3-TBT
BLACKLIGHT-TC
TO 0350
PR
PROXIMITY SENSOR
B5B-PH-SM3-TBT
PWM-OUT
PULSE-OUT
7075
P87LPC760BDH
MICROCONTROLLER
DSX840GA 20M
"PROXIMITY"
PROX-DET
BC857CW
TSAL5300
TSOP34836YA1
"IR RECEIVER"
LM358P
TEMD5000
"LIGHT SENSOR"
"LED DIMMING"
BC847BW
BAS316
BC857BW
BCP53
3104 313 6016.5
F_15710_113.eps
160905
1 2 3 4 5 6 7 8 9 10 11 12 13
A B C D E F G H I

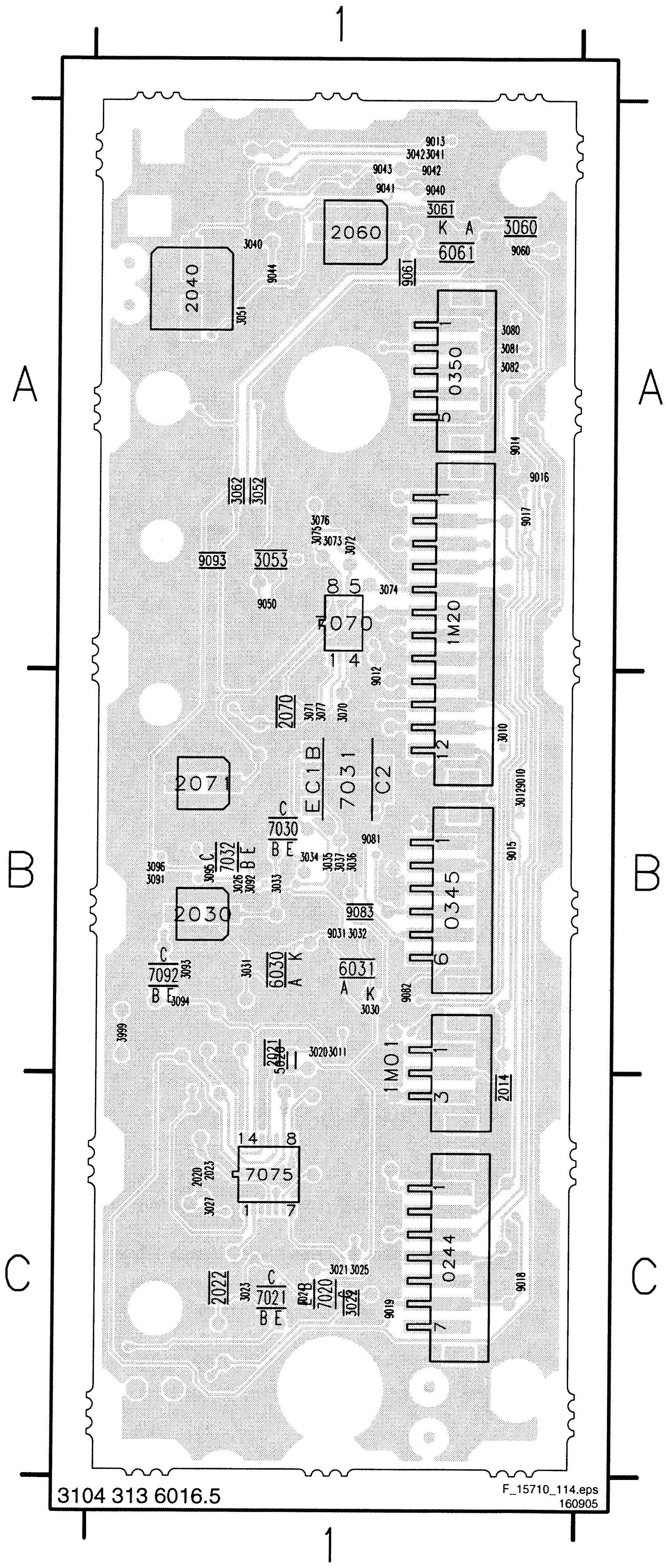
0244	C1
0345	B11
0350	C11
1020	E2
1040	F8
1M01	C1
1M20	A1
2014	D3
2020	F2
2021	E3
2022	F7
2023	F1
2030	I4
2040	F9
2060	C6
2070	F11
2071	G11
3010	B2
3011	A3
3012	B2
3020	E1
3021	E5
3022	E6
3023	E7
3024	E7
3025	E4
3026	F4
3027	E2
3030	H3
3031	H4
3032	I4
3033	H5
3034	H6
3035	H6
3036	H6
3037	H7
3040	E9
3041	G9
3042	F9
3051	B8
3052	B8
3053	C7
3060	C5
3061	B5
3062	B5
3070	G10
3071	F11
3072	G11
3073	G12
3074	F12
3075	F12
3076	G13
3077	G11
3080	C10
3081	C10
3082	C10
3091	H1
3092	G2
3093	H3
3094	G1
3095	I2
3096	H2
3999	I13
5020	D4
6030	H4
6031	I4
6051	C8
6060	C5
6061	B6
6070	G10
6080	E7
7020	E6
7021	F7
7030	H5
7031	H6
7032	I3
7070-1	F11
7070-2	F12
7075	E3
7092	H2
9010	C4
9012	B4
9013	E9
9014	C2
9015	A4
9016	A4
9017	A4
9018	C4
9019	C4
9031	H4
9040	G9
9041	F9
9042	G9
9043	F9
9044	E9
9050	C7
9060	C5
9061	B6
9081	B11
9082	B11
9083	C11
9093	H1
F010	A2
F011	A3
F012	A3
F013	B3
F014	B2
F015	A3
F016	B2
F017	A2
F018	B2
F019	B2
F020	B2
F021	D2
F027	E2
F028	E2
F029	E2
F030	E4
F031	D3
F032	E2
F033	F4
F038	I12
F039	I13
F083	B10
F084	B10
F086	B10
F087	C10
F088	B10
F089	B10
I019	E5
I020	C2
I021	E4
I022	C2
I023	C2
I024	C2
I025	C2
I026	F11
I027	E7
I028	F1
I029	F2
I030	E6
I031	E6
I032	E7
I033	I4
I034	G3
I035	E6
I036	F7
I037	H6
I038	H6
I039	H3
I040	H4
I041	G9
I042	G9
I043	F9
I044	E9
I045	F9
I046	E9
I047	H4
I048	H5
I049	H7
I051	D7
I052	B7
I061	C5
I062	B5
I063	C6
I064	D5
I071	F10
I072	F13
I073	G11
I074	G11
I075	F10
I076	F12
I093	G2
I094	G2
c001	E5

Layout LED Panel (Top Side)


1
A
B
C
1040
6051
6060
6070
1020
6080
A
K
3104 313 6016.5
F_15710_114.eps
160905

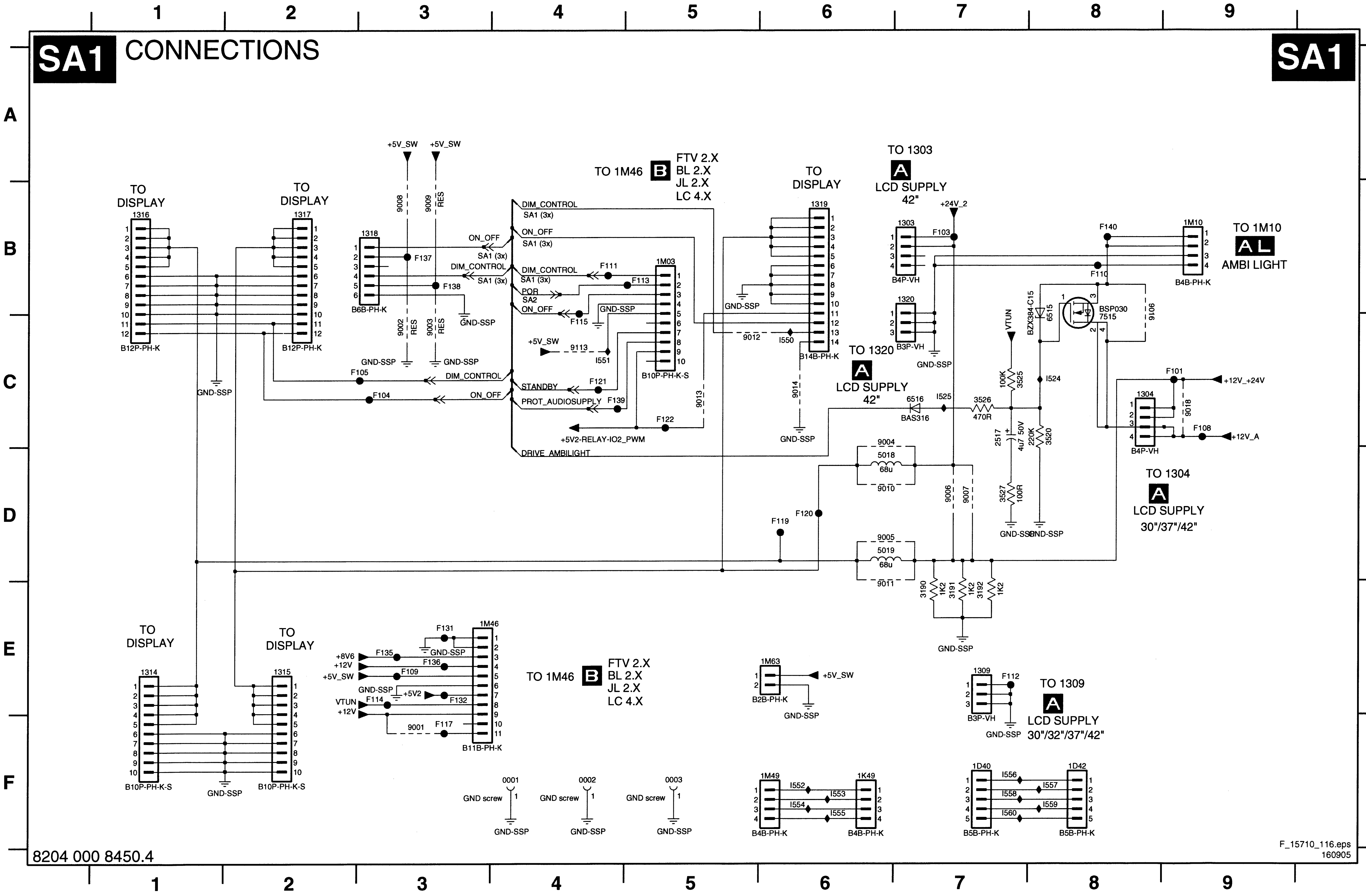
1020	C1
1040	A1
6051	A1
6060	A1
6070	A1
6080	C1

Layout LED Panel (Bottom Side)


1
A
B
C
2040
2060
3061
6061
3060
9061
0350
1M20
7070
2070
7031
2071
7030
7032
2030
9083
6030
6031
7092
0345
1M01
2014
7075
0244
2022
7021
7020
3104 313 6016.5
F_15710_114.eps
160905

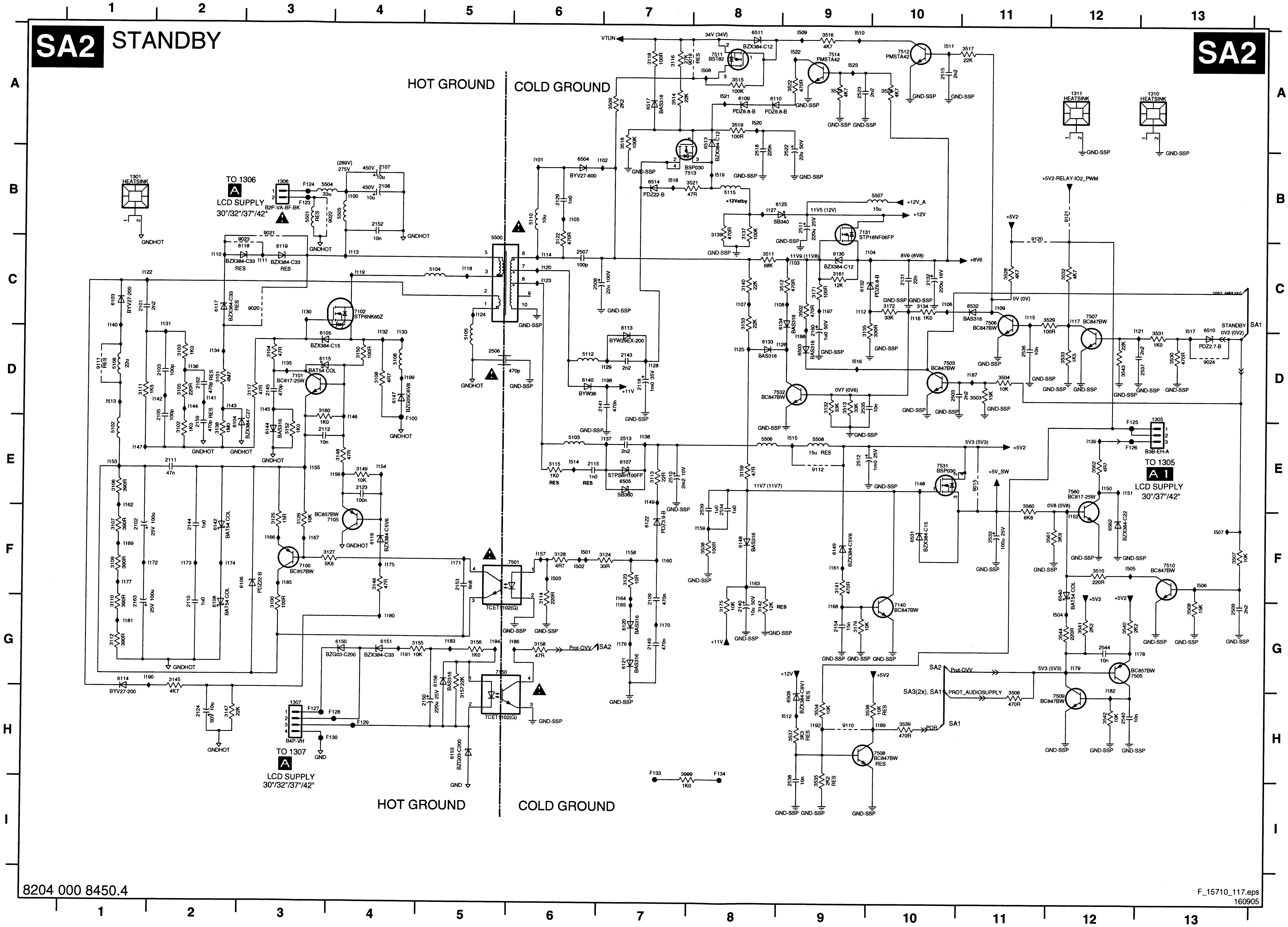
0244	C1
0345	B1
0350	A1
1M01	B1
1M20	A1
2014	C1
2020	C1
2021	B1
2022	C1
2023	C1
2030	B1
2040	A1
2060	A1
2070	B1
2071	B1
3010	B1
3011	B1
3012	B1
3020	B1
3021	C1
3022	C1
3023	C1
3024	C1
3025	C1
3026	B1
3027	C1
3030	B1
3031	B1
3032	B1
3033	B1
3034	B1
3035	B1
3036	B1
3037	B1
3040	A1
3041	A1
3042	A1
3051	A1
3052	A1
3053	A1
3060	A1
3061	A1
3062	A1
3070	B1
3071	B1
3072	A1
3073	A1
3074	A1
3075	A1
3076	A1
3077	B1
3080	A1
3081	A1
3082	A1
3091	B1
3092	B1
3093	B1
3094	B1
3095	B1
3096	B1
3999	B1
5020	B1
6030	B1
6031	B1
6061	A1
7020	C1
7021	C1
7030	B1
7031	B1
7032	B1
7070	A1
7075	C1
7092	B1
9010	B1
9012	B1
9013	A1
9014	A1
9015	B1
9016	A1
9017	A1
9018	C1
9019	C1
9031	B1
9040	A1
9041	A1
9042	A1
9043	A1
9044	A1
9050	A1
9060	A1
9061	A1
9081	B1
9082	B1
9083	B1
9093	A1

Standby/Audio Panel: Connections


SA1
CONNECTIONS
SA1
TO DISPLAY
1316
B12P-PH-K
TO DISPLAY
1317
B12P-PH-K
1318
B6B-PH-K
+5V_SW
9008
9009 RES
9002 RES
9003 RES
F137
F138
GND-SSP
TO 1M46
B
FTV 2.X
BL 2.X
JL 2.X
LC 4.X
DIM_CONTROL
SA1 (3x)
ON_OFF
POR
SA2
STANDBY
PROT_AUDIOSUPPLY
+5V2-RELAY-IO2_PWM
DRIVE_AMBILIGHT
1M03
B10P-PH-K-S
F111
F113
F115
F121
F139
F122
F105
F104
9113
I551
9013
9012
I550
TO DISPLAY
1319
B14B-PH-K
9014
TO 1303
A
LCD SUPPLY 42"
1303
B4P-VH
+24V_2
F103
1320
B3P-VH
TO 1320
A
LCD SUPPLY 42"
6516
BAS316
I525
3526
470R
VTUN
100K 3525
I524
BZX384-C15 6515
BSP030 7515
9016
F140
F110
1M10
B4B-PH-K
TO 1M10
AL
AMBI LIGHT
1304
B4P-VH
F101
+12V_+24V
9018
F108
+12V_A
TO 1304
A
LCD SUPPLY 30"/37"/42"
2517 4u7 50V
220K 3520
3527 100R
9004
5018 68u
9010
9006
9007
F119
F120
9005
5019 68u
9011
3190 1K2
3191 1K2
3192 1K2
TO DISPLAY
1314
B10P-PH-K-S
TO DISPLAY
1315
B10P-PH-K-S
1M46
B11B-PH-K
F131
F135
F136
F109
F114
F132
F117
9001
+8V6
+12V
+5V_SW
VTUN
+5V2
TO 1M46
B
FTV 2.X
BL 2.X
JL 2.X
LC 4.X
1M63
B2B-PH-K
+5V_SW
1309
B3P-VH
F112
TO 1309
A
LCD SUPPLY 30"/32"/37"/42"
0001
0002
0003
GND screw
1M49
B4B-PH-K
1K49
B4B-PH-K
I552
I553
I554
I555
1D40
B5B-PH-K
1D42
B5B-PH-K
I556
I557
I558
I559
I560
8204 000 8450.4
F_15710_116.eps
160905
1 2 3 4 5 6 7 8 9
A B C D E F

0001	F4
0002	F4
0003	F5
1303	B7
1304	C8
1309	E7
1314	E1
1315	E2
1316	B1
1317	B2
1318	B3
1319	B6
1320	B7
1D40	F7
1D42	F8
1K49	F6
1M03	B5
1M10	B9
1M46	E4
1M49	F6
1M63	E6
2517	C7
3190	E7
3191	E7
3192	E7
3520	C8
3525	C7
3526	C7
3527	D7
5018	D6
5019	D6
6515	B8
6516	C7
7515	C8
9001	F3
9002	C3
9003	C3
9004	C6
9005	D6
9006	D7
9007	D7
9008	B3
9009	B3
9010	D6
9011	E6
9012	C5
9013	C5
9014	C6
9016	B8
9018	C9
9113	C4
F101	C9
F103	B7
F104	C3
F105	C3
F108	C9
F109	E3
F110	B8
F111	B4
F112	E7
F113	B5
F114	E3
F115	C4
F117	F3
F119	D6
F120	D6
F121	C4
F122	C5
F131	E3
F132	E3
F135	E3
F136	E3
F137	B3
F138	B3
F139	C4
F140	B8
I524	C8
I525	C7
I550	C6
I551	C4
I552	F6
I553	F6
I554	F6
I555	F6
I556	F7
I557	F8
I558	F7
I559	F8
I560	F7

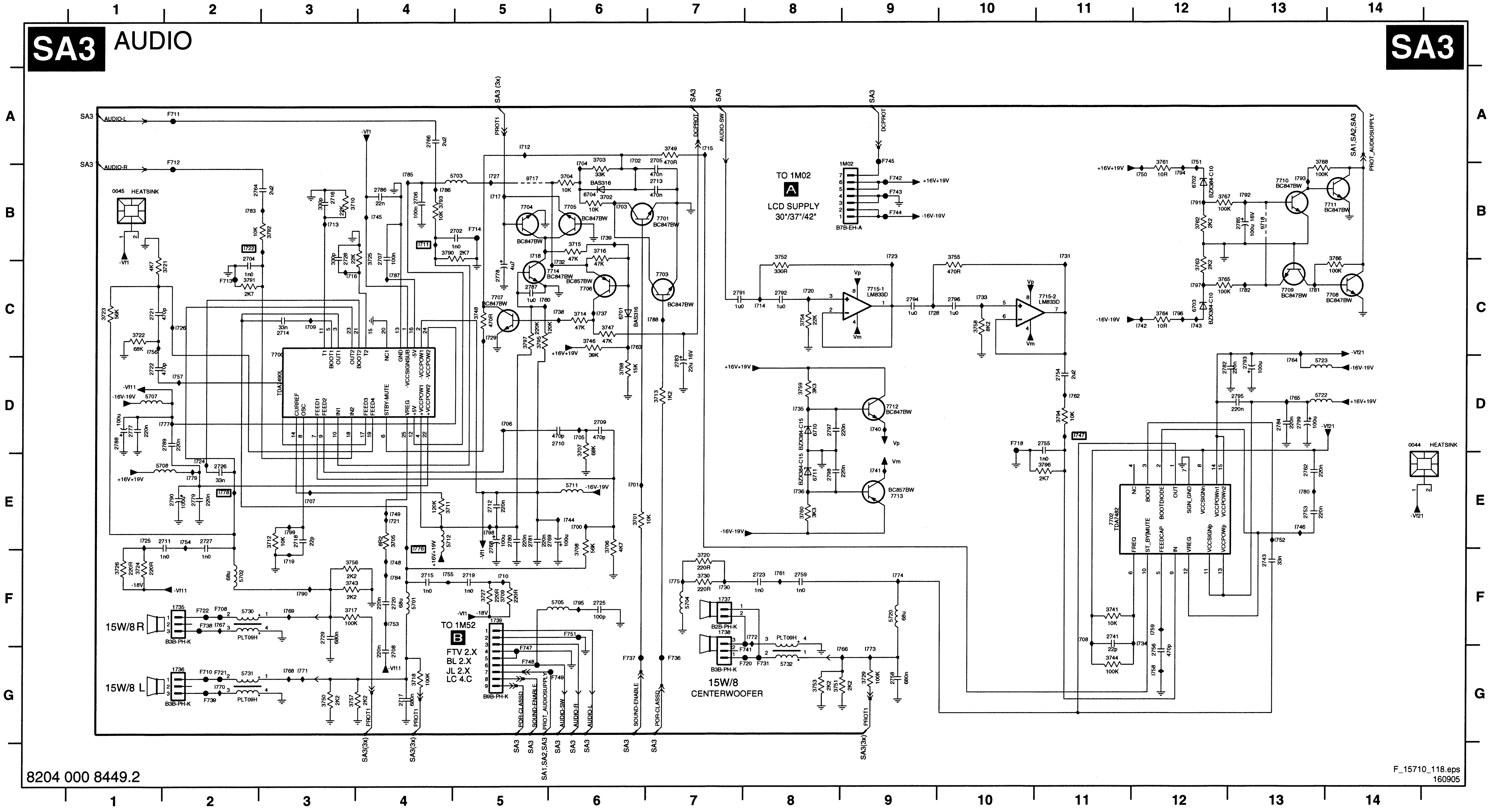
Standby/Audio Panel: Standby


SA2
STANDBY
HOT GROUND
COLD GROUND
TO 1306
A
LCD SUPPLY
30"/32"/37"/42"
TO 1307
A
LCD SUPPLY
30"/32"/37"/42"
TO 1305
A1
LCD SUPPLY
30"/37"/42"
HEATSINK
VTUN
+12V_A
+12V
+8V6
+5V2
+5V_SW
+11V
+5V2-RELAY-IO2_PWM
STANDBY
SA1
SA2
Prot-OVV
SA3(2x), SA1
PROT_AUDIOSUPPLY
POR
GNDHOT
GND-SSP
GND
TCET1102(G)
STP6NK60Z
STP16NF06FP
BSP030
BST82
PMSTA42
BC847BW
BC857BW
BC817-25W
B2P-VA-BF-BK
B4P-VH
B3B-EH-A
8204 000 8450.4
F_15710_117.eps
160905

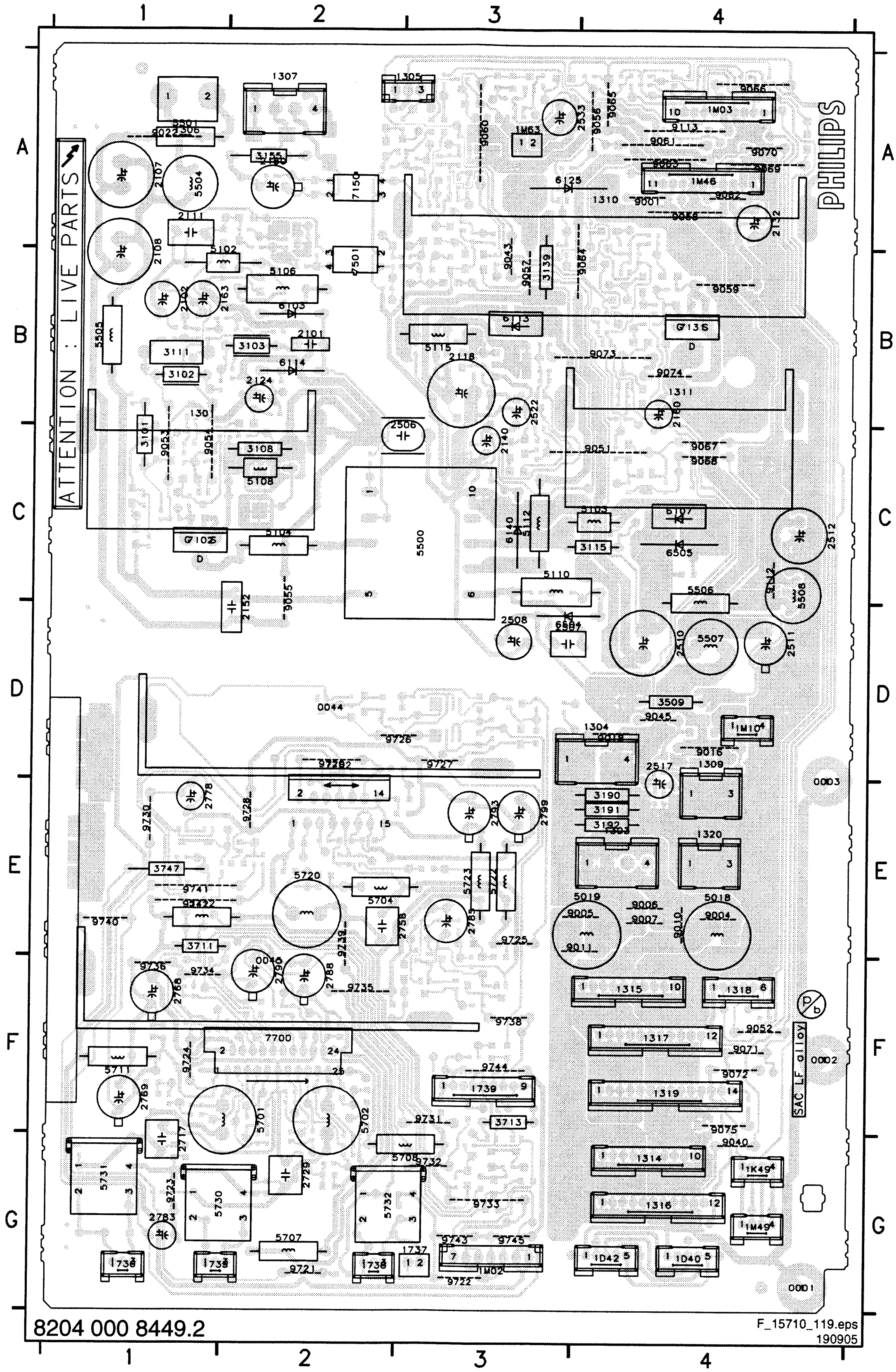
1301	B1
1305	D13
1306	B3
1307	H3
1310	A13
1311	A12
2101	C1
2102	F1
2103	D2
2105	D2
2107	B4
2108	B4
2109	F7
2110	G2
2111	E2
2112	E3
2115	E6
2118	D7
2123	E4
2124	H2
2129	B6
2131	C10
2132	C10
2140	G8
2141	D7
2143	D7
2144	F2
2145	D3
2149	G7
2150	H5
2152	B4
2153	F5
2154	G9
2159	E2
2160	C9
2162	D2
2163	G1
2503	D10
2506	D5
2507	C6
2508	C6
2509	G13
2510	E7
2511	B9
2512	E9
2513	E7
2515	A10
2518	A8
2522	A9
2523	A9
2533	F11
2534	E8
2535	D9
2536	D11
2537	D13
2538	H9
2539	E8
2540	H12
2544	G12
3100	G3
3101	D2
3102	E2
3103	D2
3104	D3
3105	D2
3106	E1
3107	F1
3108	D4
3109	F1
3110	G1
3111	D1
3112	G1
3113	E7
3114	F6
3115	E6
3116	A7
3117	D3
3118	A7
3122	B6
3123	F7
3124	F7
3125	F3
3126	F3
3127	F3
3128	F6
3132	D9
3134	C10
3135	C9
3137	B8
3138	E2
3139	B8
3140	C8
3141	F9
3142	G8
3145	G2
3146	F4
3147	H2
3148	E4
3149	E4
3150	D4
3152	E3
3153	C8
3155	G4
3156	G5
3157	H5
3158	G6
3159	E8
3160	D3
3161	C9
3171	C9
3172	C10
3175	G8
3176	G9
3502	C9
3503	D11
3504	D11
3506	H11
3507	F13
3508	G13
3509	A7
3510	F12
3511	C8
3512	C9
3513	D9
3514	A7
3515	A8
3516	A9
3517	A11
3518	A7
3519	A8
3521	B7
3522	A9
3523	A9
3524	A10
3528	C11
3529	C11
3530	D13
3531	D13
3532	C12
3533	D12
3534	H9
3535	H9
3536	H10
3537	H9
3538	F8
3539	H10
3540	G12
3541	G12
3542	H12
3543	D12
3544	G12
3560	E11
3561	F12
3562	E12
3999	H7
5102	E1
5103	E6
5104	C5
5105	D5
5106	D1
5108	D4
5110	B6
5112	D6
5115	B8
5500	C5
5501	B3
5504	B3
5505	B4
5506	E8
5507	B10
5508	E9
6103	C1
6104	E2
6105	D3
6106	F2
6107	E7
6108	G2
6109	A8
6110	A8
6113	C7
6114	G1
6115	D3
6116	F4
6117	C2
6118	C2
6119	C3
6120	G7
6121	G7
6122	F7
6125	B8
6130	C9
6132	C9
6133	D8
6134	C9
6140	D6
6142	F2
6144	E3
6147	D4
6148	F8
6149	F9
6150	G4
6151	G4
6153	H5
6156	G5
6503	D9
6504	B6
6505	E7
6508	H9
6510	C13
6511	A8
6513	A8
6514	B7
6517	A7
6531	F10
6532	C11
6540	F12
6562	F12
7100	F3
7101	D3
7102	C4
7105	F4
7131	B9
7140	G10
7150	G5
7501	F6
7503	D10
7505	G12
7506	C11
7507	C12
7508	H10
7509	H12
7510	F13
7511	A8
7512	A10
7513	B7
7514	A9
7531	E10
7532	D9
7560	E12
9015	E11
9019	A7
9020	C3
9021	B3
9022	B3
9023	C2
9024	D13
9110	H9
9111	D1
9112	E9
9120	B11
9121	B12
F100	E4
F123	B3
F124	B3
F125	E12
F126	E12
F127	H3
F128	H4
F129	H4
F130	H4
F133	H7
F134	H8
I100	B4
I101	B6
I102	B6
I103	C9
I104	C9
I105	B6
I106	C10
I107	C8
I108	C8
I109	C11
I110	C2
I111	C3
I112	C9
I113	C4
I114	C6
I115	C11
I116	C10
I117	C12
I118	C5
I119	C4
I120	C6
I121	C12
I122	C1
I123	C6
I124	C5
I125	D8
I126	D9
I127	B8
I128	D7
I129	D7
I130	C3
I131	C2
I132	D4
I133	D4
I134	D2
I135	D3
I136	D2
I137	E7
I138	E7
I139	E12
I140	C1
I141	D2
I142	D2
I143	D2
I144	D2
I145	D3
I146	D4
I147	E1
I148	E10
I149	E7
I150	E12
I151	E12
I152	F12
I153	E1
I154	E4
I155	E3
I156	E4
I157	F6
I158	F7
I159	F8
I160	F7
I161	F9
I162	E1
I163	F8
I164	F7
I165	G7
I166	F3
I167	F3
I168	G9
I169	F1
I170	G7
I171	F5
I172	F2
I173	F2
I174	F2
I175	F4
I176	G7
I177	F1
I178	G13
I179	G12
I180	G4
I181	G1
I182	G12
I183	G5
I184	G5
I185	F3
I186	G6
I187	D11
I188	D9
I189	H10
I190	G1
I191	G4
I192	H9
I197	C9
I198	D7
I199	D4
I501	F6
I502	F6
I503	F6
I504	G12
I505	F12
I506	F13
I507	F13
I508	A8
I509	A9
I510	A9
I511	A10
I512	H9
I513	D1
I514	E6
I515	E9
I516	D9
I517	C13
I518	B7
I519	B8
I520	A8
I521	A8
I522	A9
I523	A9

Standby/Audio Panel: Audio

0044	D14
0045	B1
1735	F2
1736	G2
1737	F7
1738	F7
1739	F5
1M02	A9
2702	B5
2704	C2
2705	A7
2706	B4
2707	B4
2708	G4
2709	D6
2710	D6
2711	E2
2712	E5
2713	B7
2714	C3
2715	F4
2716	B3
2717	G4
2718	E3
2719	F5
2720	F4
2721	C1
2722	D1
2723	F8
2725	F6
2726	E2
2727	E2
2728	B3
2729	F3
2741	F11
2743	F13
2753	E13
2754	D11
2755	D11
2756	G12
2758	G9
2759	F8
2762	E13
2764	B2
2766	A4
2768	E5
2769	E5
2777	D1
2778	C5
2779	E2
2780	E5
2781	E5
2782	D12
2783	D7
2784	D13
2785	B13
2786	B4
2787	C5
2788	D1
2789	D2
2790	E2
2791	C7
2792	C8
2793	D13
2794	C9
2795	D13
2796	C10
2797	D8
2798	E8
2799	D13
3701	E6
3702	B6
3703	A6
3704	B6
3705	E4
3706	E6
3707	D6
3708	F6
3709	F5
3710	B3
3711	E4
3712	E3
3713	D7
3714	C6
3715	B6
3716	B6
3717	F3
3718	G4
3720	F7
3721	C1
3722	C1
3723	C1
3724	F1
3725	B4
3726	F1
3727	F5
3729	G9
3730	F7
3741	F11
3743	F3
3744	G11
3746	C6
3747	C6
3748	C5
3749	A7
3750	G3
3751	G8
3752	B8
3753	G8
3754	C8
3755	B10
3756	F3
3757	G3
3758	C10
3759	D8
3760	E8
3761	B12
3762	B12
3763	C12
3764	C12
3765	C12
3766	C14
3767	B12
3768	B13
3790	B4
3791	C2
3792	B3
3793	B4
3794	D11
3795	C5
3796	E11
3797	C5
3798	D6
5701	F4
5702	F2
5703	B5
5704	F7
5705	F6
5707	D1
5708	E1
5711	E6
5712	E4
5720	F9
5722	D13
5723	D13
5730	F2
5731	G2
5732	G8
6701	C6
6702	B12
6703	C12
6704	B6
6710	D8
6711	E8
7700	C3
7701	B7
7702	E11
7703	C7
7704	B5
7705	B6
7706	C6
7707	C5
7708	C13
7709	C13
7710	B13
7711	B13
7712	D9
7713	E9
7714	C5
7715-1	C9
7715-2	C11
9717	B5
9718	B13
F708	F2
F710	G2
F711	A2
F712	B2
F713	C2
F714	B5
F718	D10
F720	G8
F721	G2
F722	F2
F731	G8
F736	G7
F737	G6
F738	F2
F739	G2
F741	G8
F742	B9
F743	B9
F744	B9
F745	A9
F747	G5
F748	G5
F749	G6
F751	F6
I700	E6
I701	E6
I702	A6
I703	B6
I704	A6
I705	D6
I706	D5
I707	E3
I708	F11
I709	C3
I710	F5
I711	B4
I712	A5
I713	B3
I714	C8
I715	A7
I716	C3
I717	B5
I718	B5
I719	F3
I720	C8
I721	E4
I722	B2
I723	B9
I724	E2
I725	E1
I726	C2
I727	B5
I728	C9
I729	C5
I730	F7
I731	B11
I732	C6
I733	C10
I734	F12
I735	D8
I736	E8
I737	C6
I738	C6
I739	B6
I740	D9
I741	E9
I742	C12
I743	C12
I744	E6
I745	B4
I746	E13
I747	D11
I748	F4
I749	E4
I750	B12
I751	A12
I752	E13
I753	F4
I754	E2
I755	F4
I756	C1
I757	D2
I758	G12
I759	F12
I760	C5
I761	F8
I762	D11
I763	C6
I764	D13
I765	D13
I766	G9
I767	F2
I768	G3
I769	F3
I770	G2
I771	G3
I772	F8
I773	G9
I774	F9
I775	F7
I776	E4
I777	D2
I778	E2
I779	E2
I780	E13
I781	C13
I782	C13
I783	B2
I784	F4
I785	B4
I786	B4
I787	C4
I788	C7
I790	F3
I791	B12
I792	B13
I793	B13
I794	B12
I795	F6
I796	C12
I797	C12
I798	E5
I799	E3


SA3
AUDIO
SA3
AUDIO-L
AUDIO-R
HEATSINK
TDA7490L
BC847BW
BC857BW
BAS316
LM833D
TDA7482
+16V+19V
-16V-19V
15W/8 R
15W/8 L
B3B-PH-K
PLT09H
TO 1M52
B
FTV 2.X
BL 2.X
JL 2.X
LC 4.C
B9B-PH-K
POR-CLASSD
SOUND-ENABLE
PROT_AUDIOSUPPLY
AUDIO-SW
AUDIO-R
AUDIO-L
TO 1M02
A
LCD SUPPLY
30"/37"/42"
B7B-EH-A
DCPROT
PROT1
15W/8
CENTERWOOFER
B2B-PH-K
SA1,SA2,SA3
SA3(3x)
8204 000 8449.2
F_15710_118.eps
160905

Layout Standby/Audio Panel (Top Side)



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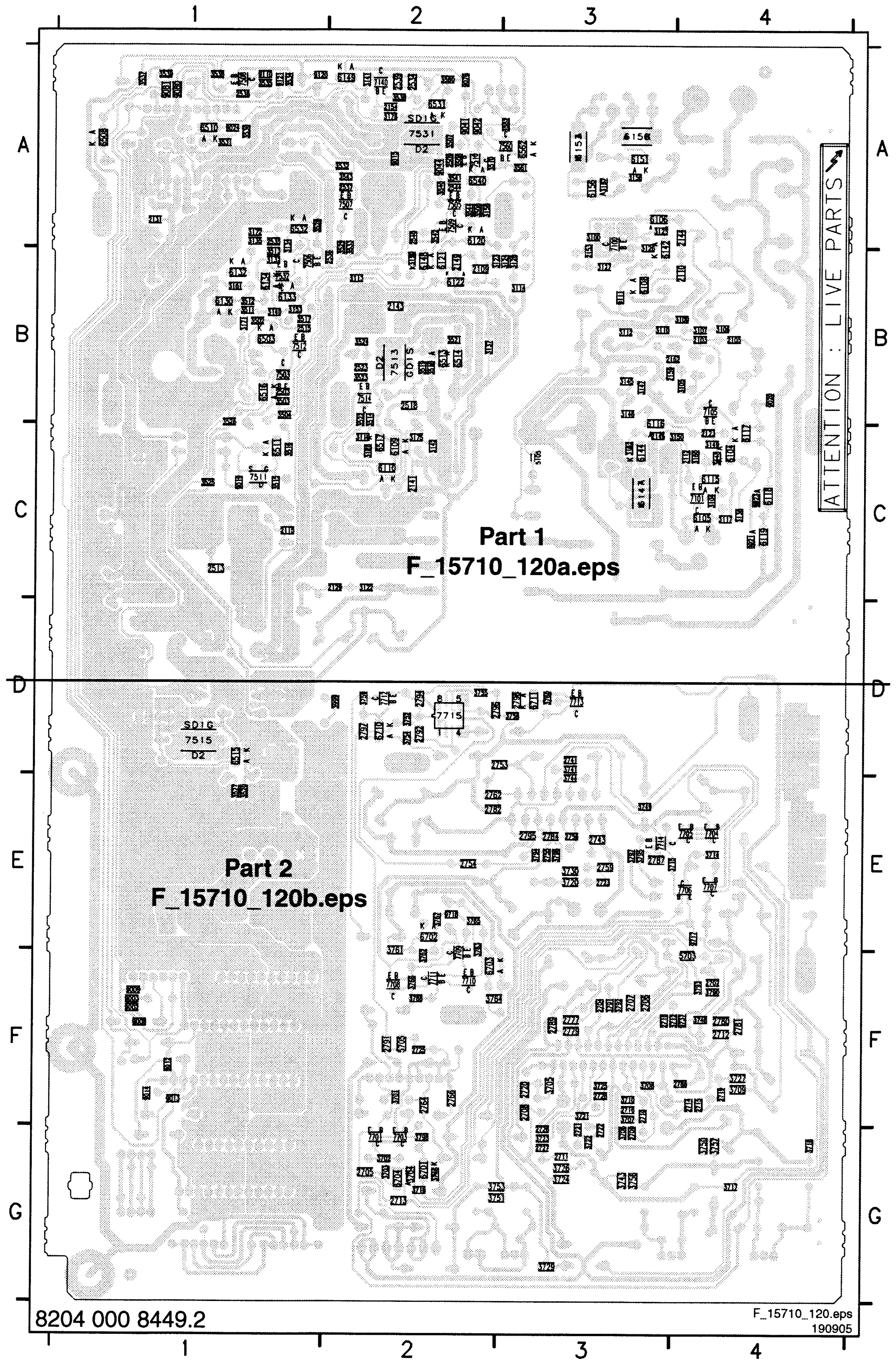
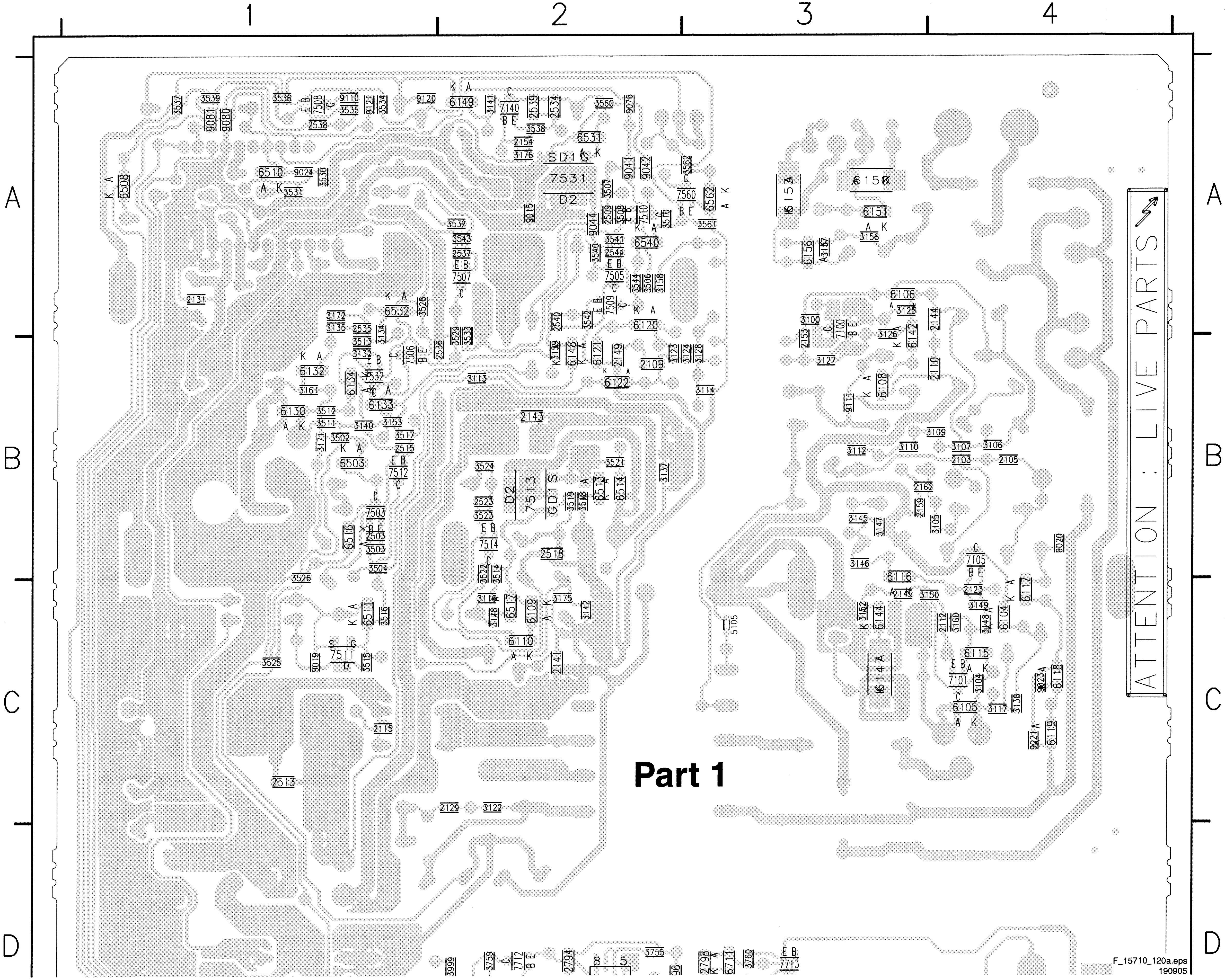
0002	F4	5103	C4	9726	D2
0003	D4	5104	C2	9727	D3
0044	D1	5106	B2	9728	E2
0045	E1	5108	C2	9729	D2
1301	C1	5110	C3	9730	E1
1303	E4	5112	C3	9731	F3
1304	D4	5115	B3	9732	G3
1305	A3	5500	C3	9733	G3
1306	A1	5501	A1	9734	F1
1307	A2	5504	A1	9735	F3
1309	D4	5505	B1	9736	F1
1310	A3	5506	C4	9738	F3
1311	B4	5507	D4	9739	F2
1314	G4	5508	C4	9740	E1
1315	F4	5701	F2	9741	E1
1316	G4	5702	F2	9742	E1
1317	F4	5704	E2	9743	G3
1318	F4	5707	G2	9744	F3
1319	F4	5708	G3	9745	G3
1320	E4	5711	F1		
1735	G1	5712	E1		
1736	G1	5720	E2		
1737	G3	5722	E3		
1738	G2	5723	E3		
1739	F3	5730	G2		
1D40	G4	5731	G1		
1D42	G4	5732	G3		
1K49	G4	6103	B2		
1M02	G3	6107	C4		
1M03	A4	6113	B3		
1M10	D4	6114	B2		
1M46	A4	6125	A3		
1M49	G4	6140	C3		
1M63	A3	6504	D3		
2101	B2	6505	C4		
2102	B1	7102	C1		
2107	A1	7131	B4		
2108	A1	7150	A2		
2111	A1	7501	B2		
2118	B3	7700	F2		
2124	B2	7702	D2		
2132	A4	9001	A4		
2140	C3	9004	E4		
2150	A2	9005	E4		
2152	D2	9006	E4		
2160	B4	9007	E4		
2163	B1	9010	E4		
2506	B2	9011	E4		
2507	D3	9016	D4		
2508	D3	9018	D4		
2510	D4	9022	A1		
2511	D4	9040	G4		
2512	C4	9043	B3		
2517	D4	9045	D4		
2522	B3	9051	C4		
2533	A4	9052	F4		
2717	F1	9053	B1		
2729	G2	9054	B1		
2758	E3	9055	C2		
2768	F1	9056	A4		
2769	F1	9057	A3		
2778	E1	9058	A4		
2783	G1	9059	B4		
2785	E3	9060	A3		
2788	F2	9061	A4		
2790	E2	9062	A4		
2793	E3	9063	A4		
2799	E3	9064	A3		
3101	C1	9065	A4		
3102	B1	9066	A4		
3103	B2	9067	C4		
3108	C2	9068	C4		
3111	B1	9069	A4		
3115	C4	9070	A4		
3139	B3	9071	F4		
3155	A2	9072	F4		
3190	E3	9073	B4		
3191	E3	9074	B4		
3192	E3	9075	F4		
3509	D4	9112	C4		
3711	F1	9113	A4		
3713	F3	9721	G2		
3747	E1	9722	G3		
5018	E4	9723	G1		
5019	E4	9724	F1		

Layout Standby/Audio Panel (Overview Bottom Side)



2103	B4	3110	B3	3705	F3	6508	A1
2105	B4	3112	B3	3706	G3	6510	A1
2109	B2	3113	B2	3707	F3	6511	C1
2110	B4	3114	B3	3708	F3	6513	B2
2112	C4	3116	C2	3709	F4	6514	B2
2115	C1	3117	C4	3710	F3	6515	D1
2123	C4	3118	C2	3712	F4	6516	B1
2129	C2	3122	C2	3714	E4	6517	C2
2131	A1	3123	B2	3715	E3	6531	A2
2141	C2	3124	B3	3716	G2	6532	A1
2143	B2	3125	A3	3717	G4	6540	A2
2144	A4	3126	A3	3718	G4	6562	A3
2145	C3	3127	B3	3720	E3	6701	G2
2149	B2	3128	B3	3721	F3	6702	E2
2153	B3	3132	B1	3722	G3	6703	F3
2154	A2	3134	A1	3723	G3	6704	G2
2159	B3	3135	A1	3724	G3	6710	D2
2162	B3	3137	B2	3725	F3	6711	D3
2503	B1	3138	C4	3726	G3	7100	A3
2509	A2	3140	B1	3727	F4	7101	C4
2513	C1	3141	A2	3729	G3	7105	B4
2515	B1	3142	C2	3730	E3	7140	A2
2518	B2	3145	B3	3741	D3	7503	B1
2523	B2	3146	B3	3743	G3	7505	A2
2534	A2	3147	B3	3744	E3	7506	B1
2535	A1	3148	C4	3746	G2	7507	A2
2536	B2	3149	C4	3748	F4	7508	A1
2537	A2	3150	C4	3749	E3	7509	A2
2538	A1	3152	C3	3750	G4	7510	A2
2539	A2	3153	B1	3751	G3	7511	C1
2540	A2	3156	A3	3752	D2	7512	B1
2544	A2	3157	A3	3753	G3	7513	B2
2702	F4	3158	A2	3754	D2	7514	B2
2704	F3	3159	B2	3755	D2	7515	D1
2705	G2	3160	C4	3756	G3	7531	A2
2706	F3	3161	B1	3757	G4	7532	B1
2707	F3	3171	B1	3758	D3	7560	A3
2708	F3	3172	A1	3759	D2	7701	G2
2709	G3	3175	C2	3760	D3	7703	G2
2710	F3	3176	A2	3761	F2	7704	E4
2711	G3	3502	B1	3762	F2	7705	E4
2712	F4	3503	B1	3763	E2	7706	E4
2713	G2	3504	B1	3764	F2	7707	E4
2714	F4	3506	A2	3765	E2	7708	F2
2715	F4	3507	A2	3766	F2	7709	F2
2716	F3	3508	A2	3767	E2	7710	F2
2718	F3	3510	A2	3768	F2	7711	F2
2719	F4	3511	B1	3790	F4	7712	D2
2720	F3	3512	B1	3791	F3	7713	D3
2721	G3	3513	B1	3792	F3	7714	E3
2722	G3	3514	B2	3793	F4	7715	D2
2723	E3	3515	C1	3794	E3	9002	F1
2725	F2	3516	C1	3795	E3	9003	F1
2726	G3	3517	B1	3796	E3	9008	F1
2727	G3	3518	B2	3797	E3	9009	F1
2728	F3	3519	B2	3798	G2	9012	F1
2741	D3	3520	E1	3999	D2	9013	F1
2743	E3	3521	B2	5105	C3	9014	F1
2753	D3	3522	B2	5703	F4	9015	A2
2754	E2	3523	B2	5705	F2	9019	C1
2755	E3	3524	B2	6104	C4	9020	B4
2756	E3	3525	C1	6105	C4	9021	C4
2759	E3	3526	B1	6106	A3	9023	C4
2762	E2	3527	E1	6108	B3	9024	A1
2764	F2	3528	A1	6109	C2	9041	A2
2766	F2	3529	B2	6110	C2	9042	A2
2777	F3	3530	A1	6115	C4	9044	A2
2779	F3	3531	A1	6116	B3	9076	A2
2780	F4	3532	A2	6117	B4	9080	A1
2781	F4	3533	B2	6118	C4	9081	A1
2782	E2	3534	A1	6119	C4	9110	A1
2784	E3	3535	A1	6120	A2	9111	B3
2786	F4	3536	A1	6121	B2	9120	A1
2787	E3	3537	A1	6122	B2	9121	A1
2789	F3	3538	A2	6130	B1	9717	E4
2791	F2	3539	A1	6132	B1	9718	E2
2792	D2	3540	A2	6133	B1	9737	F4
2794	D2	3541	A2	6134	B1		
2795	E3	3542	A2	6142	B3		
2796	D2	3543	A2	6144	C3		
2797	D2	3544	A2	6147	C3		
2798	D3	3560	A2	6148	B2		
3100	A3	3561	A3	6149	A2		
3104	C4	3562	A3	6150	A3		
3105	B4	3701	F2	6151	A3		
3106	B4	3702	G2	6153	A3		
3107	B4	3703	G2	6156	A3		
3109	B4	3704	G2	6503	B1		

Layout Standby/Audio Panel (Part 1 Bottom Side)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3
4
A
B
C
D
Part 1
ATTENTION : LIVE PARTS
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9081
9080
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7508
2538
9110
3535
9121
3534
9120
6149
3141
7140
2539
2534
3560
9076
3538
2154
3176
6531
SD1G
7531
D2
9015
3507
9041
9042
3562
7560
6562
3561
6508
6510
9024
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3532
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7507
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7510
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2544
7505
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3506
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7506
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3128
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3114
6130
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3511
3140
3153
3171
3502
3517
6503
2515
7512
2143
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3521
2523
3523
7513
GD1S
3519
3518
6513
6514
3137
7503
6516
2503
3503
3504
7514
2518
3526
3522
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3116
3118
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6109
3175
3142
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5105
7511
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3515
2115
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2153
7100
3126
6142
3127
2110
6108
9111
3109
3112
3110
3107
2103
3106
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2162
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3145
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9020
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2146
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2123
3149
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3162
6144
2112
3160
3148
6104
6147
6115
7101
3104
9023
6118
6105
3117
3138
9021
6119
3999
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2798
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3760
7713

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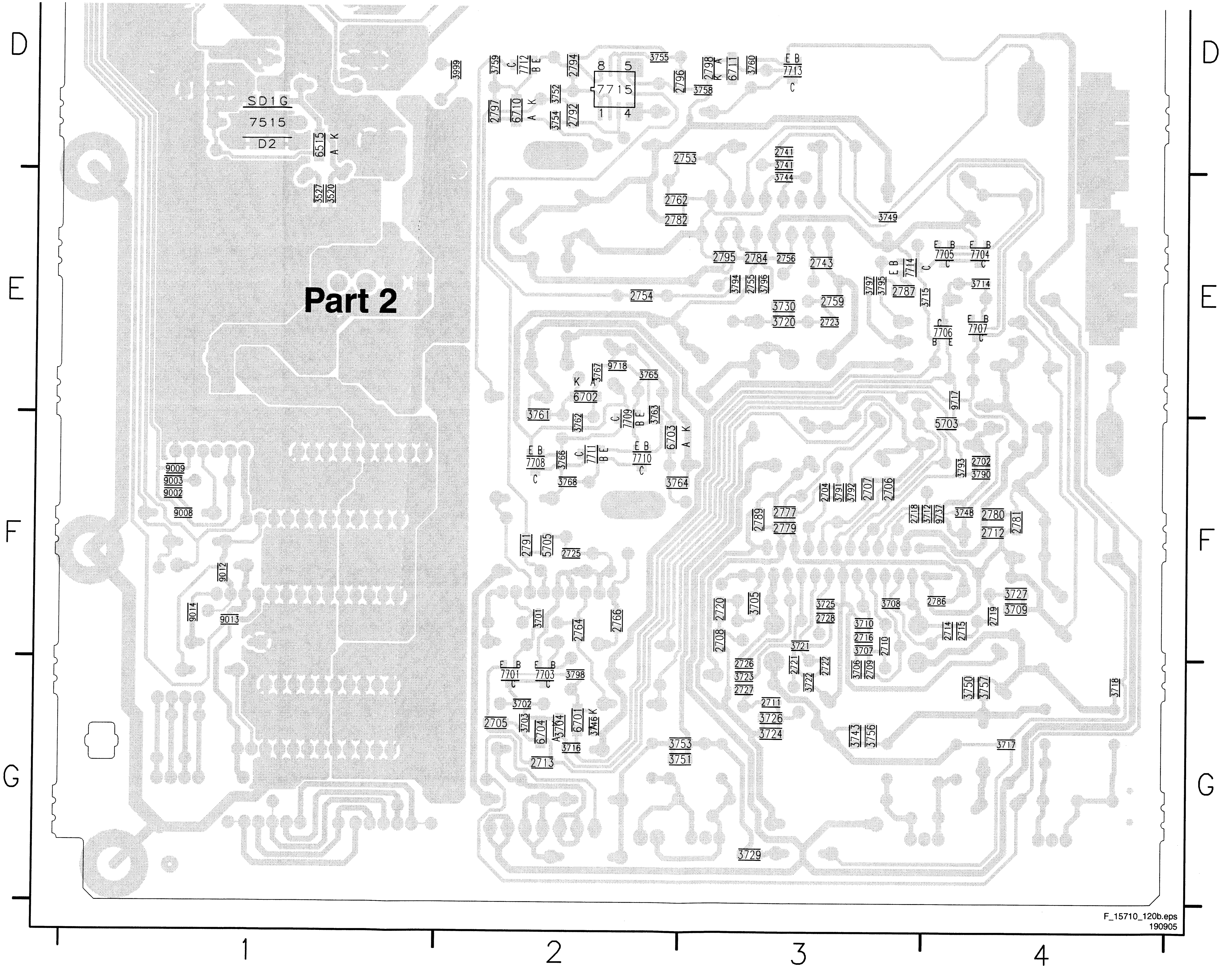
Layout Standby/Audio Panel (Part 2 Bottom Side)


D
E
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3
4
Part 2
SD1G
7515
D2
6515
A K
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3520
3999
3759
7712
2797
6710
3752
3754
2792
2794
7715
8 5
1 4
3755
2796
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6701
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8. Alignments

Index of this chapter:

8.1 General Alignment Conditions
8.2 Hardware Alignments
8.3 Software Alignments
8.4 Option Settings

Note: The Service Default Mode (SDM) and Service Alignment Mode (SAM) are described in chapter 5. Menu navigation is done with the CURSOR UP, DOWN, LEFT or RIGHT keys of the remote control transmitter.

8.1 General Alignment Conditions

8.1.1 Start Conditions

Perform all electrical adjustments under the following conditions:

- Power supply voltage (depends on region):
  - **AP-NTSC:** 120 V_{AC} or 230 V_{AC} / 50 Hz (± 10%).
  - **AP-PAL-multi**: 120 - 230 V_{AC} / 50 Hz (± 10%).
  - **EU**: 230 V_{AC} / 50 Hz (± 10%).
  - **LATAM-NTSC**: 120 - 230 V_{AC} / 50 Hz (± 10%).
  - **US**: 120 V_{AC} / 60 Hz (± 10%).
- Connect the set to the mains via an isolation transformer with low internal resistance.
- Allow the set to warm up for approximately 15 minutes.
- Measure voltages and waveforms in relation to chassis ground (with the exception of the voltages on the primary side of the power supply).
  Caution: never use heatsinks as ground.
- Test probe: Ri > 10 Mohm, Ci < 20 pF.
- Use an isolated trimmer/screwdriver to perform alignments.

8.1.2 Initial Settings

Perform all electrical adjustments with the following initial settings (via the ACTIVE CONTROL button on the RC):

1. To avoid the working of the lightsensor, set ACTIVE CONTROL to OFF.
2. Set SMART PICTURE to NATURAL.
3. Set ACTIVE DISPLAY to OFF

8.1.3 Alignment Sequence

- First, set the correct options:
  - In SAM, select OPTIONS -> OPTION NUMBERS,
  - Fill in the option settings according to the set sticker (see also paragraph "Option Settings"),
  - Select STORE, push CURSOR RIGHT and OK on the remote control, The display will show the message "Store completed".
  - After storing, the set must be restarted!
- Warming up (>10 minutes).
- White-D alignment.

8.2 Hardware Alignments

8.2.1 Backlight Voltage Alignment

Switch the TV "on" and measure (on the LCD Supply panel) the voltage between MP1 and MP2 (ground) as mentioned in the table. Align the mentioned potmeter until the correct voltage is measured.

Table 8-1 Backlight alignment values

Model	MP1 (conn.-pin)	MP2 (conn.-pin)	Voltage (tolerance)	Potmeter
32"	1304-1/2	1309-1/2/3	12V (+/- 0.1V)	3026
37"	1304-3/4	1309-1/2/3	12V (+/- 0.1V)	3026
42"	1304-3/4	1309-1/2/3	11.8V (+/- 0.1V)	3026
	1303-1/2	1320-1/2/3	24.5V (+/- 0.1V)	3U26

Caution: This voltage must be aligned very precisely. When it is too high, it can destroy the inverters, but when it is too low, the backlight will not start up.

8.3 Software Alignments

Put the set in SAM mode (see the "Service Modes, Error Codes and Fault Finding" section). The SAM menu will now appear on the screen. Select ALIGNMENTS and go to one of the sub menus. The alignments are explained below.

Notes:

- All changes must be stored manually.
- If an empty EAROM (permanent memory) is detected, all settings are set to pre-programmed default values.

For the next alignments, supply the following test signals via a video generator to the RF input:

- **EU/AP-PAL** models: a PAL B/G TV-signal with a signal strength of at least 1 mV and a frequency of 475.25 MHz
- **US/AP-NTSC** models: an NTSC M/N TV-signal with a signal strength of at least 1 mV and a frequency of 61.25 MHz (channel 3).
- **LATAM** models: an NTSC M or PAL M TV-signal with a signal strength of at least 1 mV and a frequency of 61.25 MHz (channel 3).

8.3.1 General

IF PLL Offset
Purpose: To minimise crosstalk of video into sound.

Default value: "32".

In case the default value gives problems, use the next method:

1. Set the video generator to a crosshatch test pattern (no sound) and a RF amplitude of 10 mV.
2. Select the channel with the test picture.
3. Listen to the audio on the loudspeakers.
4. Align the value to get minimum noise in the sound.

IF PLL Offset 2nd Tuner
Use the same procedure as described above with the set switched to the DW source.

Tuner AGC

Purpose: To keep the tuner output signal constant as the input signal amplitude varies.

Default value: “40”.

In case the default value gives problems, use the next method:

1. Set the video generator to a colour bar test pattern and a RF amplitude of 1 mV.
2. Select the channel with the test picture.
3. Measure the DC voltage on pin 1 of the (main) Tuner.
4. Adjust this voltage via TUNER AGC to just below 3.5 V.

Tuner AGC 2nd Tuner

Use the same procedure as described above with the set switched to the DW source. Measure on pin 1 of the DW Tuner.

8.3.2 White D Alignment

- Set ACTIVE CONTROL to OFF (via RC).
- In the TV -> PICTURE user menu set:
  - DYNAMIC CONTRAST to OFF.
  - COLOUR ENHANCEMENT to OFF.
  - COLOUR to "0".
  - CONTRAST to "100".
  - BRIGHTNESS to "50".
- Go to the SAM and select ALIGNMENTS -> WHITE POINT.

Method 1 (with colour analyser):

- Use a 100% white screen as input signal and set the following values:
  - COLOR TEMPERATURE: "Tint to be aligned".
  - WHITEPOINT RED, GREEN, and BLUE: "127".
  - RED BL OFFSET: "7"
  - GREEN BL OFFSET: "3".
- Measure with a calibrated (phosphor- independent) colour analyser in the centre of the screen. Use a contactless analyser (e.g. Minolta CA-210) for LC displays. Consequently, the measurement needs to be done in a dark environment.
- Adjust, by means of decreasing the value of one or two white points, the correct x,y coordinates (see table "White D alignment values"). Tolerance: dx,dy: ± 0.004.
- Repeat this step for the other Colour Temperatures that need to be aligned.
- When finished press "Store" to store the aligned values to the NVM.

Table 8-2 White D alignment values

Coordinates (temp. in K)	Cool (11000)	Normal (9300)	Warm (D65)
X	0.276	0.285	0.313
Y	0.282	0.293	0.329

Method 2 (without colour analyser):

If you do not have a colour analyser, you can use the default values. This is the next best solution. The default values are average values coming from production (statistics).

1. Select a COLOUR TEMPERATURE (e.g. COOL, NORMAL, or WARM).
2. Set the RED, GREEN and BLUE default values according to the values in the "Tint settings" table.
3. When finished press "Store" to store the aligned values to the NVM.

Table 8-3 Tint settings

Colour Temp.	Display	Cool	Normal	Warm
Cool	32”	104	127	117
	37”	104	126	127
	42”	127	120	122
Normal	32”	115	127	109
	37”	116	127	118
	42”	127	112	105
Warm	32”	127	120	80
	37”	127	118	87
	42”	127	95	68

8.4 Option Settings

8.4.1 Introduction

The microprocessor communicates with a large number of I^{2}C ICs in the set. To ensure good communication and to make digital diagnosis possible, the microprocessor has to know which ICs to address. The presence / absence of these specific ICs (or functions) is made known by the option codes.

Notes:

- After changing the option(s), save them with the STORE command.
- The new option setting is only active after the TV is switched "off" and "on" again with the Mains switch (the EAROM is then read again).

8.4.2 Dealer Options

Table 8-4 Dealer option overview

Menu name	Subjects	Options	Description
Personal Options	Picture Mute	Yes	Picture (blue) mute active in case no picture detected
		No	Noise in case of no picture detected
	Virgin Mode	Yes	TV starts up (once) with language selection menu after mains switch "on" for the first time (virgin mode)
		No	TV does not starts up (once) with language selection menu after mains switch "on" for the first time (virgin mode)
	Auto Store Mode (only for EU and AP-PAL/M sets)	None	Autostore mode disabled (not in installation menu)
		PDC-VPS	Autostore mode via ATS (PDC/VPS) enabled
		TXT page	Autostore mode via ACI enabled
		PDC-VPS-TXT	Autostore mode via ACI or ATS enabled
	TXT Preference (only for EU and AP-PAL sets)	TOP	Preference to TOP Teletext
		FLOF	Preference to FLOF Teletext

8.4.3 Service Options

Select the sub menu's to set the initialisation codes (options) of the set via text menus.

Table 8-5 Service options

Menu-item	Subjects	Options	Description
PIP/DS	Dual Screen	None / 1 tuner / 2 tuners	no DS / DS with one tuner / DS with two tuners
Data	TV Guide US	On / Off	Feature present / not present
Display	Screen	"Value"	Used screen size, type, and resolution (see table "Option code overview" for the values)
	Scanning Backlight	On / Off	Feature present / not present
	Dimming Backlight	On / Off	Feature present / not present
Video Repro	Picture Processing	SPIDER / No SPIDER	Feature present / not present
	Combfilter	None / 2D / 3D	Only selectable with Columbus in set: No/without RAM/with RAM
	Ambient Light	None / Mono / Stereo	Inverter not present / two inverters mono / two inverters stereo
	MOP	On / Off	Feature present / not present (for sets with AmbiLight this is "on")
Source Selection	HDMI 1	None / Audio / No Audio	No HDMI / HDMI with analog audio / HDMI without analog audio
	HDMI 2	None / Audio / No Audio	No HDMI / HDMI with analog audio / HDMI without analog audio
	USB version	None / 1.1 / 2.0 + CR	No USB / USB 1.1 in side I/O panel / USB 2.0 in card reader panel
	IEEE1394	Yes / No	Connector present / not present
	Ethernet	Yes / No	Connector present / not present
	S/PDIF inputs	None / 1 conn. / 2 conn.	None / 1 connector present (in)/ 2 connectors present (in/out)
Audio Repro	Subw. Internal Present	Yes / No	Internal sub woofer present / not present
	Acoustic System (Cabinet design, used for setting dynamic audio parameters).	None	
		Entry ME5 5W	
		Entry ME5 15W	
		(Soft) Wrap	
		Top	xxPF9830
		Entry+	
		Others	
Miscellaneous	Alternative Tuner	Philips / Alps	Tuner brand
	Tuner Type	TD1336S	Tuner type
Opt. no.	Group 1		xxxxx xxxxx xxxxx xxxxx (see set sticker)
	Group 2		xxxxx xxxxx xxxxx xxxxx (see set sticker)

8.4.4 Opt. No. (Option numbers)

Select this sub menu to set all options at once (expressed in two long strings of numbers).
An option number (or "option byte") represents a number of different options. When you change these numbers directly, you can set all options very quickly. All options are controlled via eight option numbers.
When the EAROM is replaced, all options will require resetting. To be certain that the factory settings are reproduced exactly, you must set both option number lines. You can find the correct option numbers on a sticker inside the TV set.

Example: The options sticker gives the following option numbers:

- 01617 00004 02137 20544
- 01030 00000 00551 00000

The first line (group 1) indicates hardware options 1 to 4, the second line (group 2) indicates software options 5 to 8.
Every 5-digit number represents 16 bits (so the maximum value will be 65536 if all options are set).
When all the correct options are set, the sum of the decimal values of each Option Byte (OB) will give the option number.
See next table for the option overview.

Table 8-6 Option code overview

Byte	Bit (dec. value)	Subject	Options	Settings (in decimal values)	Remarks
1	0 (1)	Video Repro	Picture Processing	0= No SPIDER, 1= SPIDER	SPIDER availability, influences, digital options.
	1 (2)				
	2 (4)				
	3 (8)		Comb Filter	0= None, 8= 2D Comb (Columbus without DRAM), 16= 3D Comb (Columbus with DRAM)	
	4 (16)				
	5 (32)		Ambient Light	0= None, 32=Ambi-light Stereo, 64= Ambi-light Mono	
	6 (64)				
	7 (128)				
	8 (256)		Dual Screen	0= None, 256= One Tuner DS, 512= Two Tuner DS	
	9 (512)				
	10 (1024)		MOP	0= Off, 1024= On	Matrix Output Processor (or EBILD)
	11 (2048)		JOP	0= Off, 2048= On	Jaguar Output Processor (or EBILD) Reserved for future use
	12 (4096)		POD	0= Off, 4096= On	
	13 (8192)		n.a.		
	14 (16384)		n.a.		
	15 (32768)		n.a.		
2	0 (1)	Sound Repro	Cabinet type (Acoustic System	0= None, 1= Entry_ ME5_5W, 2= Entry_ME5_15W, 3= (Soft)Wrap, 4= Top, 5= Entry+, 15= Others	Cabinet design, used for setting dynamic audio parameters.
	1 (2)				
	2 (4)				
	3 (8)				
	4 (16)		Aux Headphone Sound	0= Off, 16= On	Dual AC3 sound in Aux available.
	5 (32)		n.a.		
	6 (64)		n.a.		
	7 (128)		n.a.		
	8 (256)		n.a.		
	9 (512)		Sub woofer Internal	0= Not Present, 512= Present	
	10 (1024)		Centre Mode Support	0= Not Supported, 1024= Supported	
	11 (2048)		n.a.		
	12 (4096)		n.a.		
	13 (8192)		n.a.		
	14 (16384)		n.a.		
	15 (32768)		n.a.		
3	0 (1)	Source Select	HDMI1	0= None, 1= With analog audio, 2= Without analog audio	
	1 (2)				
	2 (4)		HDMI2	0= None, 4= With analog audio, 8= Without analog audio	
	3 (8)				
	4 (16)		n.a.		
	5 (32)		USB Version	0= None, 32= USB 1.1, 64= USB 2.0 + Card reader	USB support.
	6 (64)				
	7 (128)		IEEE1394	0= Not Present, 128= Present	
	8 (256)		Ethernet	0= LAN not present, 256= LAN present	
	9 (512)		n.a.		
	10 (1024)		S/PDIF Inputs	0= None, 1024= 1 Connector, 2048= 2 Connectors	
	11 (2048)				
	12 (4096)		LCOS I/O	0= Not Present, 4096= Present	
	13 (8192)		n.a.		
	14 (16384)		n.a.		
	15 (32768)		n.a.		
4	0 (1)	Region	Region	0= EU, 1= AP-P, 2= AP-N, 3= US, 4= Latam	
	1 (2)				
	2 (4)				
	3 (8)	Interconnect	China IF	0= Off, 8= On	
	4 (16)		Alternative Tuner	0= Philips, 16= Alps	Tuner make.
	5 (32)		Tuner Type	0= TD1336s (B-Chassis US), 32= TD1331(J-Chassis US), 64= UV1318 (Analogue EU), 96= TD1316 (Hybrid EU)	Tuner type (B-chassis US is e.g "BP2.3U").
	6 (64)				
	7 (128)	Source Select	n.a.		
	8 (256)		AV1	0= CVBS/RGB, 256= CVBS/YC/LR, 512= CVBS/YC/YPbPr/HV/LR	Input type.
	9 (512)				
	10 (1024)		AV2	0= CVBS/YC/RGB/P50, 1024= CVBS/YC/LR	Input type.
	11 (2048)				
	12 (4096)		AV3	0= Not Available, 4096= CVBS, 8192= YPbPr	Input type.
	13 (8192)				
	14 (16384)		AV4	0= Not Available, 16384= YPbPr	Input type.
	15 (32768)				

Byte	Bit (dec. value)	Subject	Options	Settings (in decimal values)	Remarks
5	0 (1)	Display	Screen	See table “Display option code overview” in chapter 5 “Service Modes, ...”. Example: 028 (6912)= 37-inch LCD Sharp full HD (used in 37PF9830/10)	Screen size, type, and resolution.
	1 (2)				
	2 (4)				
	3 (8)				
	4 (16)				
	5 (32)				
	6 (64)				
	7 (128)				
	8 (256)		n.a.		
	9 (512)		n.a.		
	10 (1024)		Dimming Backlight	0= Off, 1024= On	
	11 (2048)		Scanning Backlight	0= Off, 2048= On	
	12 (4096)		n.a.		
	13 (8192)		n.a.		
	14 (16384)		n.a.		
	15 (32768)		n.a.		
6	0 (1)	Miscellaneous	Monitor	0= Off, 2= On	Reserved for future use
	1 (2)		n.a.		
	2 (4)		Stand Alone	0= Off, 4= On	Reserved for future use
	3 (8)		n.a.		
	4 (16)		n.a.		
	5 (32)		n.a.		
	6 (64)		Proximity Sensor	0= Off, 64= On	
	7 (128)		n.a.		
	8 (256)		Touch Pad	0= Off, 256= On	Reserved for future use
	9 (512)		n.a.		
	10 (1024)		n.a.		
	11 (2048)		n.a.		
	12 (4096)		n.a.		
	13 (8192)		n.a.		
	14 (16384)		n.a.		
	15 (32768)		n.a.		
7	0 (1)	Personal	Self Learning TV	0= Off, 1= On	
	1 (2)		Auto Store Mode	0= None, 2= PDC/VPS, 4= TXT Page, 6= PDC/VPS/TXT Page	Fixed to: "None" in the AP-N and US versions.
	2 (4)				
	3 (8)		2CS Korea	0= Off, 8= On, 16= Auto	
	4 (16)				
	5 (32)		Picture Mute	0= Off, 32= On	
	6 (64)		n.a.		
	7 (128)		Virgin Mode	0= Off, 128= On	
	8 (256)		Hotel Mode	0= Off, 256= On	
	9 (512)		Content Browser	0= Not Present, 512= Present	
	10 (1024)		Connected Planet	0= Off, 1024= Full Connected Planet + logo support	
	11 (2048)				
	12 (4096)		n.a.		
	13 (8192)		EPG	0= None, 8192= TXT Guide only, 16384= NextView 2C3, 24576 = NexTView 2	
	14 (16384)				
	15 (32768)		TV Guide USA (Gemstar)	0= Off, 32768= On	
8	0 (1)	n.a.	n.a.		
	1 (2)	n.a.	n.a.		
	2 (4)	n.a.	n.a.		
	3 (8)	n.a.	n.a.		
	4 (16)	n.a.	n.a.		
	5 (32)	n.a.	n.a.		
	6 (64)	n.a.	n.a.		
	7 (128)	n.a.	n.a.		
	8 (256)	n.a.	n.a.		
	9 (512)	n.a.	n.a.		
	10 (1024)	n.a.	n.a.		
	11 (2048)	n.a.	n.a.		
	12 (4096)	n.a.	n.a.		
	13 (8192)	n.a.	n.a.		
	14 (16384)	n.a.	n.a.		
	15 (32768)	n.a.	n.a.		

9. Circuit Descriptions, Abbreviation List, and IC Data Sheets

Index of this chapter:

9.1 Introduction
9.2 LCD Power Supply
9.3 DC/DC Converters (on SSB)
9.4 Inputs
9.5 MPIF (PNX 3000)
9.6 PNX2015
9.7 PNX2015: AVIP
9.8 PNX2015: Columbus (Comb Filter)
9.9 PNX2015: HD Subsystem
9.10 PNX2015: LVDS Transmitter (if used)
9.11 PNX2015: Stand-by Processor
9.13 VIPER 2 (PNX 8550)
9.14 MOP
9.15 Ambient Light (if present)
9.16 Abbreviation List
9.17 IC Data Sheets

Notes:

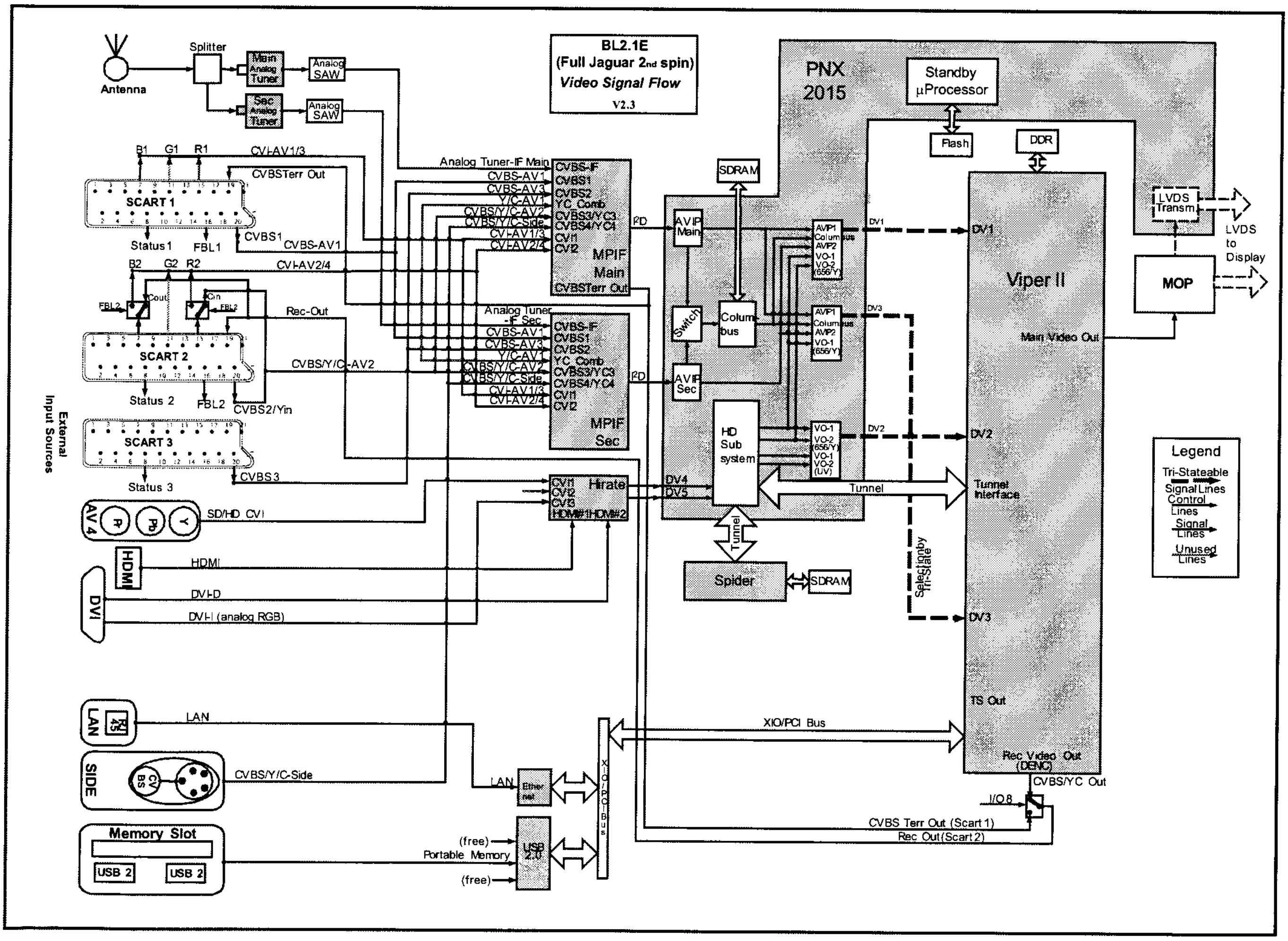
- Only **new** circuits (circuits that are not published recently) are described.
- Figures can deviate slightly from the actual situation, due to different set executions.
- For a good understanding of the following circuit descriptions, please use the wiring, block (chapter 6) and circuit diagrams (chapter 7). Where necessary, you will find a separate drawing for clarification.

9.1 Introduction

This chassis (development name "Jaguar ") is: The move from the analog world to the digital world. W.o.w. from signal processing via "hardware circuits" to signal processing via "software algorithms". This means: no software = no picture and sound!
Some key components are:

- MPIF (PNX3000).
- AVIP/COLUMBUS (PNX2015).
- SPIDER.
- VIPER 2 (PNX8550).
- MOP (EPLD).

9.1.1 Chassis Block Diagram



BL2.1E
(Full Jaguar 2nd spin)
Video Signal Flow
V2.3
Antenna
Splitter
Main Analog Tuner
Sec Analog Tuner
Analog SAW
Analog SAW
External Input Sources
B1 G1 R1
CVI-AV1/3
CVBSTerr Out
SCART 1
Status 1
FBL1
CVBS1
CVBS-AV1
B2 G2 R2
CVI-AV2/4
FBL2
Cout
Cin
Rec-Out
SCART 2
CVBS/Y/C-AV2
Status 2
FBL2
CVBS2/Yin
SCART 3
Status 3
CVBS3
AV 4
Pr
Pb
Y
SD/HD CVI
HDMI
HDMI
DVI
DVI-D
DVI-I (analog RGB)
LAN
RJ 45
LAN
SIDE
CVBS
Y/C
CVBS/Y/C-Side
Memory Slot
USB 2
USB 2
Analog Tuner-IF Main
CVBS-AV1
CVBS-AV3
Y/C-AV1
CVBS/Y/C-AV2
CVBS/Y/C-Side
CVI-AV1/3
CVI-AV2/4
CVBS-IF
CVBS1
CVBS2
YC Comb
CVBS3/YC3
CVBS4/YC4
CVI1
CVI2
MPIF
Main
CVBSTerr Out
I²D
Analog Tuner -IF Sec
CVBS-AV1
CVBS-AV3
Y/C-AV1
CVBS/Y/C-AV2
CVBS/Y/C-Side
CVI-AV1/3
CVI-AV2/4
CVBS-IF
CVBS1
CVBS2
YC Comb
CVBS3/YC3
CVBS4/YC4
CVI1
CVI2
MPIF
Sec
I²D
CVI1
CVI2
CVI3
Hirate
HDMI#1
HDMI#2
DV4
DV5
PNX
2015
Standby
µProcessor
Flash
DDR
SDRAM
AVIP Main
Switch
Columbus
AVIP Sec
HD Sub system
AVIP1
Columbus
AVIP2
VO-1
VO-2
(656/Y)
DV1
AVIP1
Columbus
AVIP2
VO-1
(656/Y)
DV3
VO-1
VO-2
(656/Y)
VO-1
VO-2
(UV)
DV2
Tunnel
Tunnel
Spider
SDRAM
Selection by Tri-State
Viper II
DV1
DV2
DV3
Tunnel Interface
Main Video Out
TS Out
Rec Video Out (DENC)
CVBS/YC Out
I/O 8
LVDS Transm.
LVDS to Display
MOP
XIO/PCI Bus
XIO/PCI Bus
Ether net
(free)
Portable Memory
(free)
USB 2.0
CVBS Terr Out (Scart 1)
Rec Out(Scart 2)
Legend
Tri-Stateable
Signal Lines
Control Lines
Signal Lines
Unused Lines

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260905

Figure 9-1 Video Block Diagram

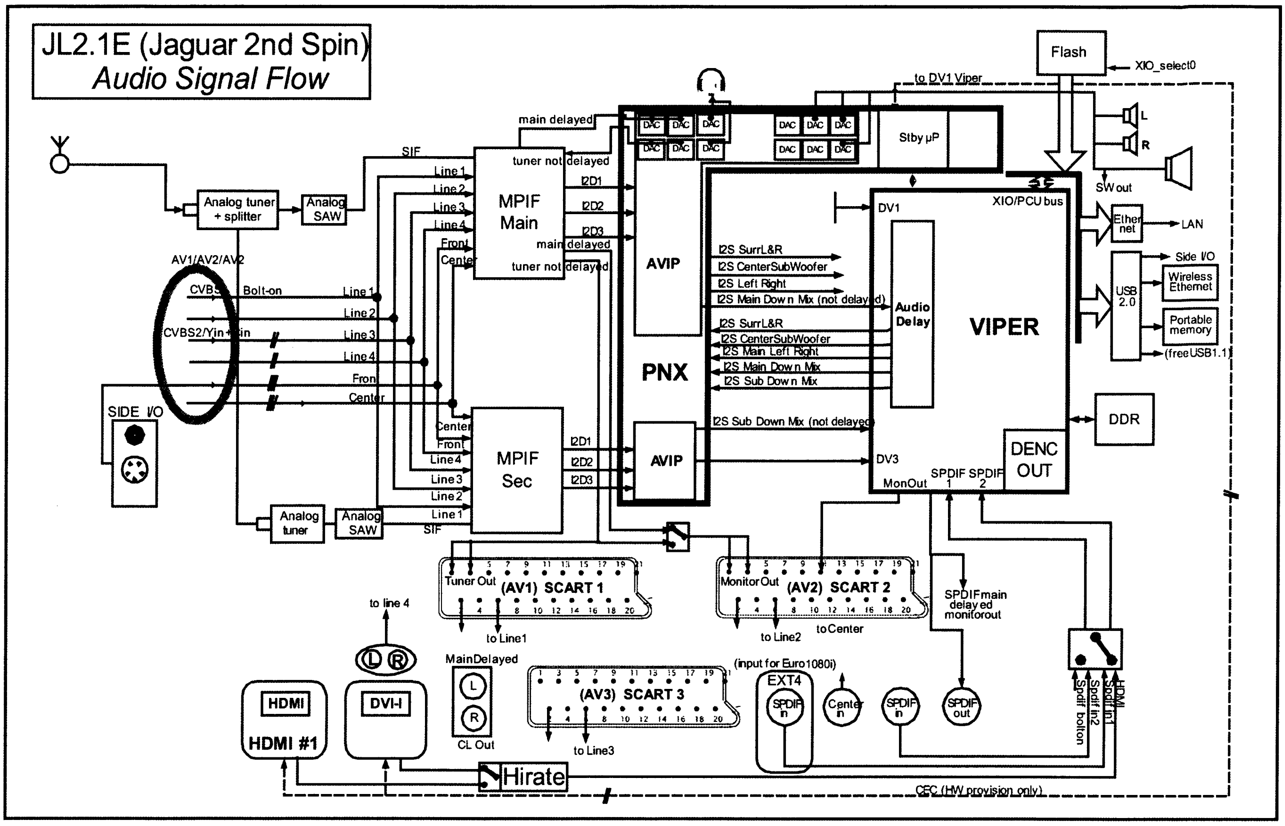
JL2.1E (Jaguar 2nd Spin)
Audio Signal Flow
Analog tuner + splitter
Analog SAW
SIF
AV1/AV2/AV2
CVBS
Bolt-on
CVBS2/Yin
SIDE I/O
Line1
Line2
Line3
Line4
Front
Center
MPIF Main
tuner not delayed
main delayed
I2D1
I2D2
I2D3
MPIF Sec
Analog tuner
Analog SAW
AVIP
PNX
DAC
Stby µP
Flash
XIO_select0
to DV1 Viper
I2S SurrL&R
I2S CenterSubWoofer
I2S Left Right
I2S Main Down Mix (not delayed)
I2S Main Left Right
I2S Main Down Mix
I2S Sub Down Mix
I2S Sub Down Mix (not delayed)
Audio Delay
VIPER
DV1
XIO/PCU bus
DV3
MonOut
SPDIF 1
SPDIF 2
DENC OUT
DDR
L
R
SW out
Ethernet
LAN
USB 2.0
Side I/O
Wireless Ethernet
Portable memory
(freeUSB1.1)
Tuner Out
(AV1) SCART 1
to Line1
Monitor Out
(AV2) SCART 2
to Line2
to Center
SPDIFmain delayed monitorout
to line 4
Main Delayed
HDMI
HDMI #1
DVI-I
CL Out
(AV3) SCART 3
to Line3
(input for Euro1080i)
EXT4
SPDIF in
Center in
SPDIF in
SPDIF out
Spdif bolton
Spdif in2
Spdif in1
HDMI
Hirate
CEC (HW provision only)

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Figure 9-2 Audio Block Diagram

The AVIP together with the MPIF device is used to perform the input decoding of a single stream of analog audio and video broadcast signals. In addition, the AVIP is used for decoding and presentation of audio output streams. The main data connection between MPIF and AVIP is done via an I^{2}D bus. The AVIP converts the incoming video data to ITU-656 format for communication to the VIPER IC.
The audio data is transferred between the AVIP and VIPER using I^{2}S.
The AVIP IC is controlled by the VIPER via the I^{2}C bus.
The key component in the system, the VIPER, performs almost all key features, like video quality enhancement, motion compensation, picture-in-picture processing, and others. It is a completely digital IC with a TriMedia DSP (Digital Signal Processor) core and a MIPS microcontroller core. The DSP and some additional cores are used to do the video feature processing and some auxiliary sound feature processing. The MIPS microcontroller core is used for all internal and external controlling tasks including a system wide I^{2}C bus.
Connected to the VIPER (via the tunnel bus of the PNX2015) is the SPIDER IC. This video co-processor is responsible for extra picture processing like temporal noise reduction, de-interlacing for HD signals, scaling, and PixelPlus 2 processing.
The VIPER provides a primary digital (YUV or RGB) output to the LVDS transmitter. For models with the AmbiLight feature, an EPLD is connected between VIPER output and LVDS Transmitter input. This EPLD (or MOP) is used for the AmbiLight processing and some picture enhancements.

9.1.2 Features

Table 9-1 Main chassis features

Feature	32"	37"	42"
AmbiLight	Stereo	Stereo	Stereo
Display	1366x768	1920x1080	1920x1080
USB	2 x USB2.0	2 x USB2.0	2 x USB2.0
Clear LCD	Yes	No	No
Ethernet	No	No	Yes
Card reader	Yes	Yes	Yes
MPEG playback	No	No	Yes
SPIDER	Yes	Yes	Yes
MOP (EPLD)	Yes	Yes	Yes
PixelPlus	2 HD	2 HD	2 HD

The main features for this chassis are (see also table):

- Fit for both analog and digital signal processing, this by converting analog signals into digital transport streams and allowing seamless zapping between all possible signal sources. This makes the chassis applicable for e.g. receiving ATSC in an integrated product form.
- AmbiLight: To be able to control lamps at the rear of the TV with respect to the measured ambient light level from the light sensor or the picture content, a control output from AutoTV has been foreseen.
- The internal digital processing allows new "Multi-Media" applications such as Content Browser, Memory Card Slot, Local Area Network support and all kinds of streaming applications.
- The chassis can be upgraded in the future with internal functionality such as Personal Video Recording, DVD/RW, MPEG playback.

9.1.3 SSB Cell Layout

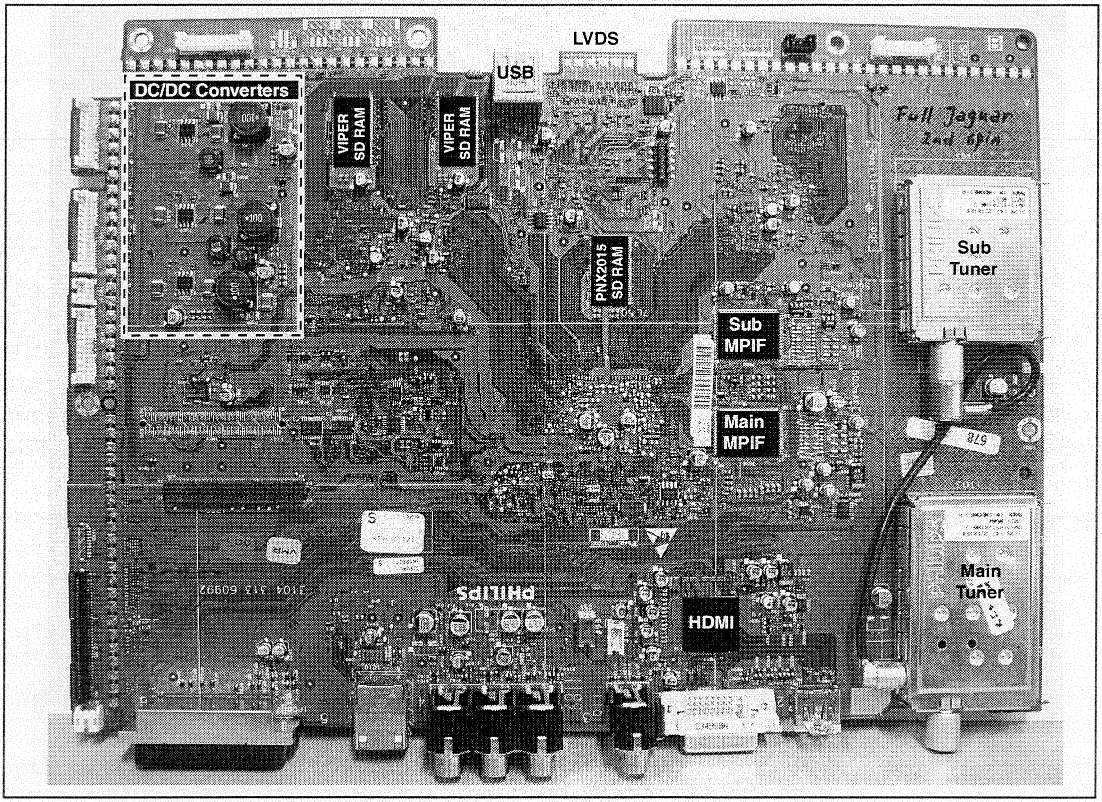
LVDS
USB
DC/DC Converters
VIPER SD RAM
VIPER SD RAM
PNX2015 SD RAM
Full Jaguar 2nd 6pin
Sub Tuner
Sub MPIF
Main MPIF
678
PHILIPS
HDMI
Main Tuner

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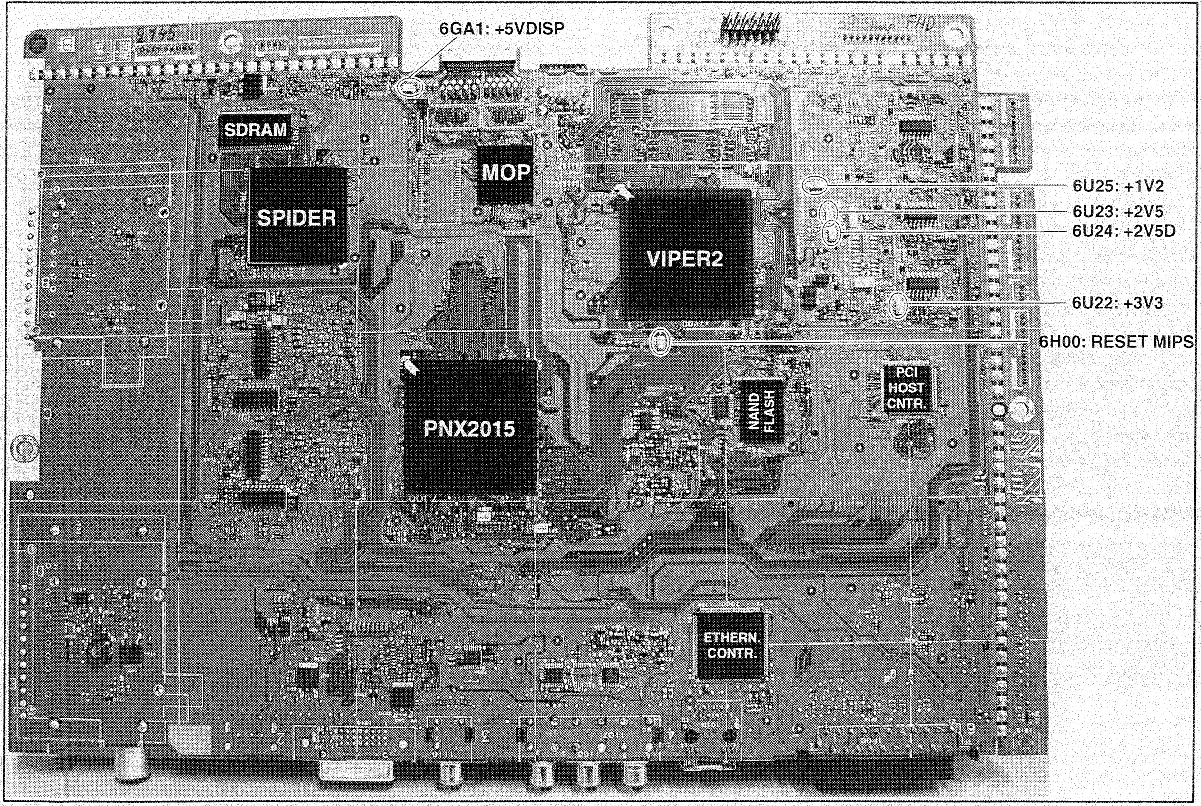
Figure 9-3 SSB top view


6GA1: +5VDISP
SDRAM
SPIDER
MOP
VIPER2
6U25: +1V2
6U23: +2V5
6U24: +2V5D
6U22: +3V3
6H00: RESET MIPS
PCI HOST CNTR.
NAND FLASH
PNX2015
ETHERN. CONTR.

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290905

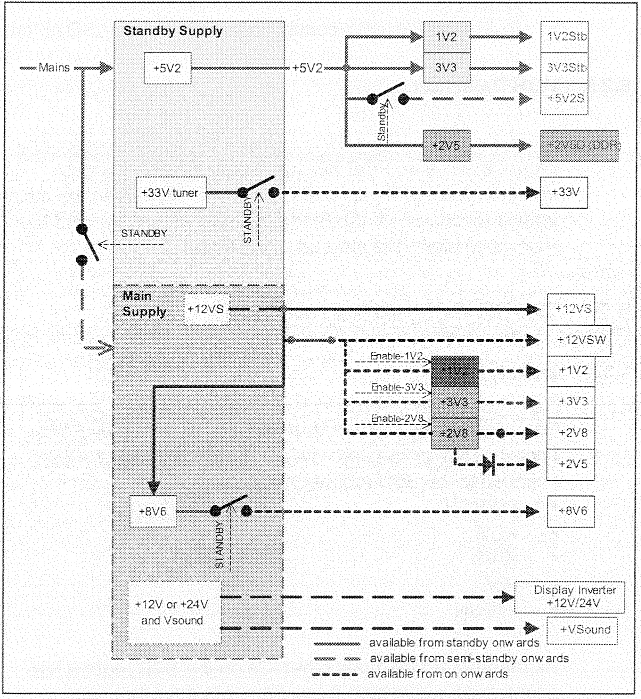
Figure 9-4 SSB bottom view

9.2 LCD Power Supply

9.2.1 General

- All displays:
  - The sound supplies are +/- 18V.
  - A loudspeaker DC protection is added (via TS7030 on the Main Supply).
  - A POK (Power OK) is generated when the 12V from the Aux supply is stabilised.
  - The STANDBY supply is integrated on the Audio Amplifier panel.

9.2.2 Block Diagram


Standby Supply
Mains
+5V2
+5V2
1V2
3V3
1V2Stb
3V3Stb
+5V2S
Standby
+2V5
+2V5D (DDR)
+33V tuner
STANDBY
+33V
STANDBY
Main Supply
+12VS
+12VS
+12VSW
Enable-1V2
+1V2
Enable-3V3
+3V3
+3V3
Enable-2V8
+2V8
+2V8
+2V5
+8V6
STANDBY
+8V6
+12V or +24V and Vsound
Display Inverter +12V/24V
+VSound
available from standby onwards
available from semi-standby onwards
available from on onwards

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260905

Figure 9-5 Block diagram power supply

Main Supply

Diversity

- Mains input voltage:
  - 240 V_{AC}.
- Mains filter diversity:
  - 2 x mains filter + inrush current resistor.
- Screen size diversity:
  - One module for 32" and 37" sets.
  - Two (almost identical) modules on one PWB for 42" sets.

Specifications

- 12 V / 3 A on connector 1304 (for AmbiLight and to generate +8V6).
- 24 V / 5 A for LCD backlight on connector 1304.
- +18V, -18V sound on connector 1M02.
- +8V6 (derived from +12V from the Main Supply, switched "off" in stand-by).
- Output voltage: over-voltage protection of resonant supply.
- Output current protection of resonant supply.
- Current protection at some safety fault conditions.

Stand-by Mode

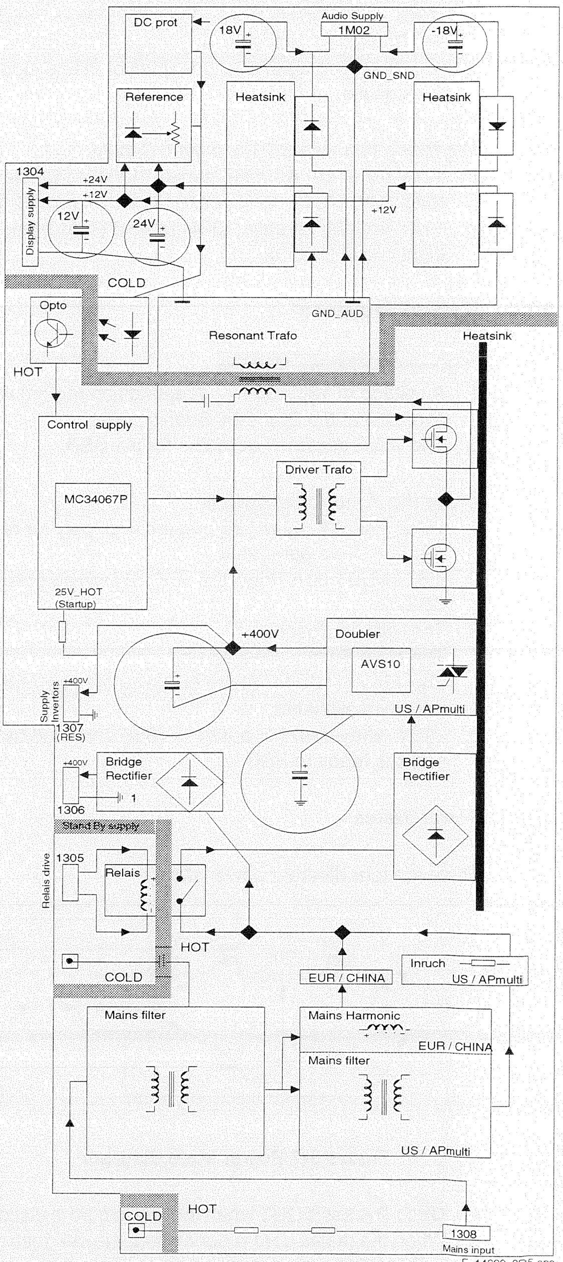
- The resonant supply is switched "off" via a relay (1350 or 1450) that is driven by the Stand-by Supply (via connector 1305).

Outputs

- 130-400 V_{DC} (full range) to Stand-by Supply (connector 1306).
- Mains over-voltage and safety protection for Stand-by Supply (connector 1307).

Inputs

- Relay drive voltage (for STANDBY/ON mode) on connector 1305.
- DC_PROT signal to protect loudspeakers when there is a DC voltage across the loudspeakers (1M02).


DC prot
Audio Supply
1M02
18V
-18V
GND_SND
Reference
Heatsink
Heatsink
1304
+24V
+12V
Display supply
12V
24V
+12V
COLD
Opto
GND_AUD
Resonant Trafo
Heatsink
HOT
Control supply
Driver Trafo
MC34067P
25V_HOT (Startup)
+400V
Doubler
AVS10
US / APmulti
+400V
Supply Inverters
1307 (RES)
+400V
Bridge Rectifier
1
1306
Bridge Rectifier
Stand By supply
1305
Relais
Relais drive
HOT
COLD
EUR / CHINA
Inruch
US / APmulti
Mains filter
Mains Harmonic
EUR / CHINA
Mains filter
US / APmulti
COLD
HOT
1308
Mains input

E_14620_025.eps
100504

Figure 9-6 Functional diagram Main Supply (one module)

Stand-by Supply

The Stand-by Supply is based upon the "Fly Back Converter" principle. A description of this principle can be found in the FM2x Service Manuals.

Specifications

- Class D audio amplifier on same panel.
- Low profile.
- Full range (90 - 270 V_{AC}) and for all screen sizes (however NOT exchangeable due to component diversity).

Outputs

- +5V2.
- +5V_SW (switched "off" in stand-by).
- V_TUN (Tuner voltage, switched "off" in stand-by).

Inputs

- 130-400 V_{DC} from the Mains Filter panel (1306).
- STANDBY_INFO from SSB (1M03).
- Over-voltage / safety protection from the Main Supply (1307 -> 6150/51/53 -> 7150 -> 7505/09 -> 7560).
  - Protection against over-voltage of the mains.
  - Protection against short-circuit of mains elco's with doubler.

Interfacing between SSB and Main Supply

- +24V (or +12V) from MF supply (1304) to Display (backlight) (1312, 1313, or 1314, 1315 or 1316, 1317).
- +12V from MF supply (1304) to SSB (1M46) and Ambient Light circuit (1M10).

9.2.3 Start-up Sequence

Connect the Mains Voltage

1. A voltage of 130-400 V_{DC} (depends on region) will be available at the Stand-by Supply panel.
2. The +5V2 becomes available for the SSB.

Close the Functional Switch

1. +5V2_RELAY_IO will be present (= supply for relay and uP). A POR is generated.
2. If STANDBY bit is "low", the +5V_SW will be present for the SSB.
3. The relay is closed.
4. The Main Supply will start up.
5. The +24V (+12V for Sharp displays) and the Audio Supply becomes available.
6. +12V ready from MF panel -> +8V6 on Stand-by Supply panel is ready to SSB

9.2.4 Power States

There are four different power states.

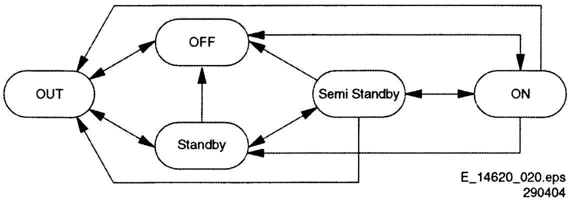


Figure 9-7 Power state diagram

- **OUT:** The set is OUT when the mains cord is disconnected. When the mains cord is connected, the set goes to OFF or to STANDBY state, depending on the last status in the NVM. From all states, the set can be set to the OUT state by disconnecting the mains cord or by a mains interruption.
- **OFF:** In the OFF state, the OTC is powered but is in low power STANDBY state. No LEDs are "on", RC6 is ignored, no EPG or P50 is possible, Proximity is set to "off", time extraction is not started (if it was done before this state, the clock stays running). This state can only be changed by the tact switch; the set goes via SEMI-STANDBY to ON. From all states, we can go to the OFF state by the tact switch.
- **STANDBY:** The set is in STANDBY if the STANDBY bit is set. This state can change with the RC6 "on" command, for EPG loading, P50 recording, for time extraction, or for ambient light. The next state is SEMI-STANDBY and to ON if the STANDBY bit is not set.
- **SEMI-STANDBY:** State between STANDBY or OFF and ON state. All supply voltages are present, but the screen is blanked.
- **ON:** set is ON.

Notes:

- In SEMI-STANDBY coming from STANDBY, the blue LED is "on",
- In SEMI-STANDBY coming from ON, the red LED is "on".

9.2.5 POR Detection

Since the ON/OFF switch is always closed (not present any more), there is no POR by starting up. The POR line is connected to +5V2 and is always "high". Only when the mains cord is reconnected, the Stand-by supply starts up, and the POR line follows the start up of the 5V2

9.3 DC/DC Converters (on SSB)

9.3.1 Introduction

The LCD Supply and Stand-by Supply are the main power supplies for this chassis. They deliver the following supply voltages to the SSB (connector 1M46):

- +12VS.
- +8V6.
- +5V2.
- +5V.
- +VTUN.

As the VIPER and many other ICs on the SSB require low supply voltages at high current (up to 3 A for the main voltages), on board DC/DC converters are implemented. The circuit on the SSP provides the 3.3 V, 2.5 V, and 1.2 V. A DC/DC converter has the following advantages:

- The DC/DC converter is directly on the SSB near the circuits that needs to be powered.
- Some circuits on the SSB need high current by low voltage, so there is no risk to have power dips or voltage loss in connections between the PSU and the SSB panel.

9.3.2 Block Diagram

See also diagram B1.

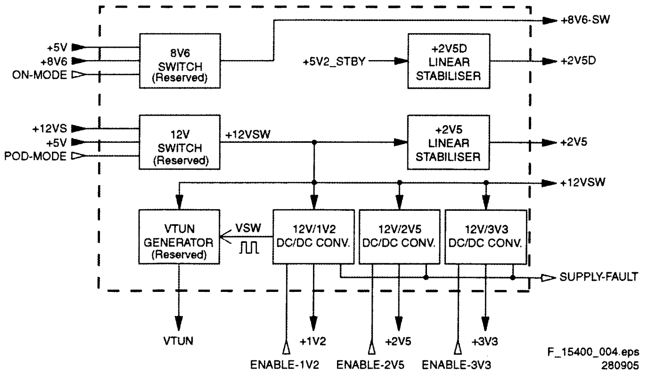


Figure 9-8 DC/DC converter block diagram

9.3.3 Start-up Sequence

1. If the input voltage of the DC/DC converters is around 12 V (measured on the decoupling capacitors 2U17/2U25/ 2U45) and the ENABLE signals are "low" (active), then the output voltages should have their normal values.
2. First, the Stand-by Processor activates the +1V2 supply (via ENABLE-1V2).
3. Then, after this voltage becomes present and is detected OK (about 100 ms), the other two voltages (+2V5 and +3V3) will be activated (via ENABLE-3V3).
4. The current consumption of controller IC 7U00 is around 20 mA (that means around 200 mV drop voltage across resistor 3U22).

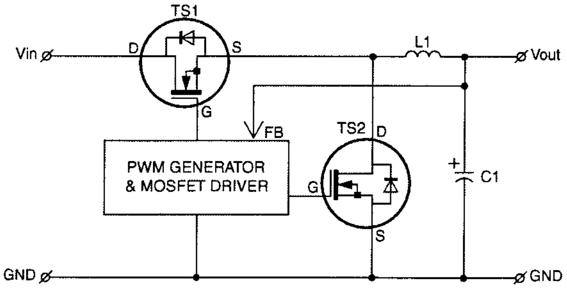
9.3.4 1.2V, 2.5V, and 3.3V DC/DC Converters

Introduction

The circuits use a so-called "synchronous buck converter". Some characteristics:

- Switching frequency: approx. 250 kHz.
- Efficiency: approx. 90%.
- Built-in output over-voltage and over-current protections
- Soft start.
- Software controlled "on/off" (via ENABLE line).

Block Diagram



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090505

Figure 9-9 Block diagram synchronous buck converter.

The advantage of a "synchronous buck converter" over a "classical buck converter" is its better efficiency (about 90%). The difference between the two is that in a synchronous buck converter the "low -side" diode is replaced by a MOSFET TS2. This, because the voltage drop across a MOSFET is smaller than the forward voltage drop of a diode.
This second MOSFET TS2 conducts current during the "off" times of the first MOSFET TS1. The upper MOSFET TS1 conducts, to transfer energy from the input to the inductor L_1 and load R_L, while the lower MOSFET TS2 conducts to circulate the inductor current (free wheel). The synchronous PWM control block regulates the output voltage by modulating the conduction intervals of the upper and lower MOSFETs.

12 V to 1.2 V DC/DC converter (7U06)

This circuit is activated when the ENABLE-1V2 signal is "low". The network 3U26+2U91+3UA7 delays the switch "off" of the converter in case of a power drop on +5V2.
The controller IC contains the error amplifier, a reference voltage of 0.9 V 2% (pin 1), an oscillator (250 kHz, set by resistor 3U31), driver stages for the output MOS-FETs 7U03-1 and 7U03-2 (pins 11: HGATE and 14: LGATE), and a window comparator for the output voltage (it has as output PGOOD pin, connected to SUPPLY-FAULT signal).
The output voltage is set by resistors 3U04, 3U28, and 3U30 and filtered by 2U39 and 5U06 for medium frequency (switching frequency) and 2U59, 5U09, 5U12, 5U13, and 5U14 for high frequency (tenths of MHz).
A boost voltage (peaks of 22 V) is provided by components 2U28 and 6U03 to pin 12 for properly driving the transistor 7U03-1.
The output voltage is ramped-up in about 5 ms (set by value of capacitor 2U19).
Additional AC-feedback for stability of converter (components 2U43, 2U54, 2U57,3U39 and 3U42).
The switching speed of 7U03-A is reduced for noise reason by means of components 2U86, 3U49, and 3U96.
The output over-voltage protection (crowbar action) and over-current protection (6...8A) is set by resistor 3U14.

12 V to 2.5 V DC/DC converter (7U05)

Is almost similar to the 12 V to 1.2 V DC/DC converter, but is providing two output voltages: +2V5 and +2V5D (separated by Schottky diodes).
It is started after the 12 V to 1.2 V DC/DC converter, by making the ENABLE-2V5 line "low".

12 V to 3.3V DC/DC converter (7U04)

Is similar to the 12 V to 1.2 V DC/DC converter, but is providing 3.3 V and is started together with the 12 V to 2.5 V DC/DC converter by making its enable signal ENABLE-3V3 "low".

Service Tips

- When a power MOS-FET is found defective, replace the other power MOS-FET and fuse 1U01 as well.
- For a normal operation of the converter, it is important to check the switching frequency, the value of the boost voltage, and the amplitude of the gate voltage of transistor 7U04 (it should be close to the boost voltage).

9.3.5 +2V5D Linear Stabiliser (7U19)

- Provides the +2V5D voltage for the DDR memory chips of the VIPER, and is derived from the +5V2-STBY voltage coming from the Main Power Supply.
- The output current is limited to a few tenths of mA.
- Output over-voltage protection is done by zener diode 6U17.

9.3.6 Internal Protection (7U20)

- This circuit around 7U20 provides a SUPPLY-FAULT signal (active "low"), when the output voltage of any DC/DC converter is out of its limits (± 10% of the normal value). In such cases, the Stand-by Processor will immediately stop the supplies by sending a "high" control signal towards the external and internal supplies: ENABLE-xVx, ON-MODE, and STAND-BY.
  Note: The SUPPLY-FAULT control signal is "low" when any DC/DC converter is disabled by its control signal (ENABLE-xVx) and +12VSW is present, therefore it is ignored during start-up!
- The internal protection works also together with the over-voltage detection transistors 7U08-2, 7U09-2, 7U10-2, and the PGOOD pin of the controller ICs (7U04, 7U05, and 7U06).

9.3.7 +12V Under-voltage Detection (7UB1)

This circuit around 7UB1 detects when the incoming +12V drops below 9 V and then switches "off" the 2.5 V and 3.3V DC/ DC converters. In this way, the power "off" sequence of the VIPER (+3V3, +2V5, and +2V5D must drop before the +1V2 drops) is guaranteed.

9.3.8 Indicator LEDs (6U22, 6U23, 6U24)

They provide a visual indication on the availability of the +1V2, +2V5, and +3V3 voltages.

9.3.9 Useful Data

See table below for the voltage specifications:

Voltage Name	Value [V]	Tolerance [%]
+5V2	5.2	5
+5V	5.1	5
+8V6	8.6	5
+12VS	12	5
+VTUN	33	5
+1V2	1.26	3
+2V5	2.6	4
+2V5D	2.6 (2.5) *	4 (5) *
+3V3	3.3	5
+5V2S	5.1	5
*) ON mode (STAND-BY mode)		

In the next figures an overview is given of the power distribution in the different power states: STANDBY, SEMI-STANDBY, and ON-mode.

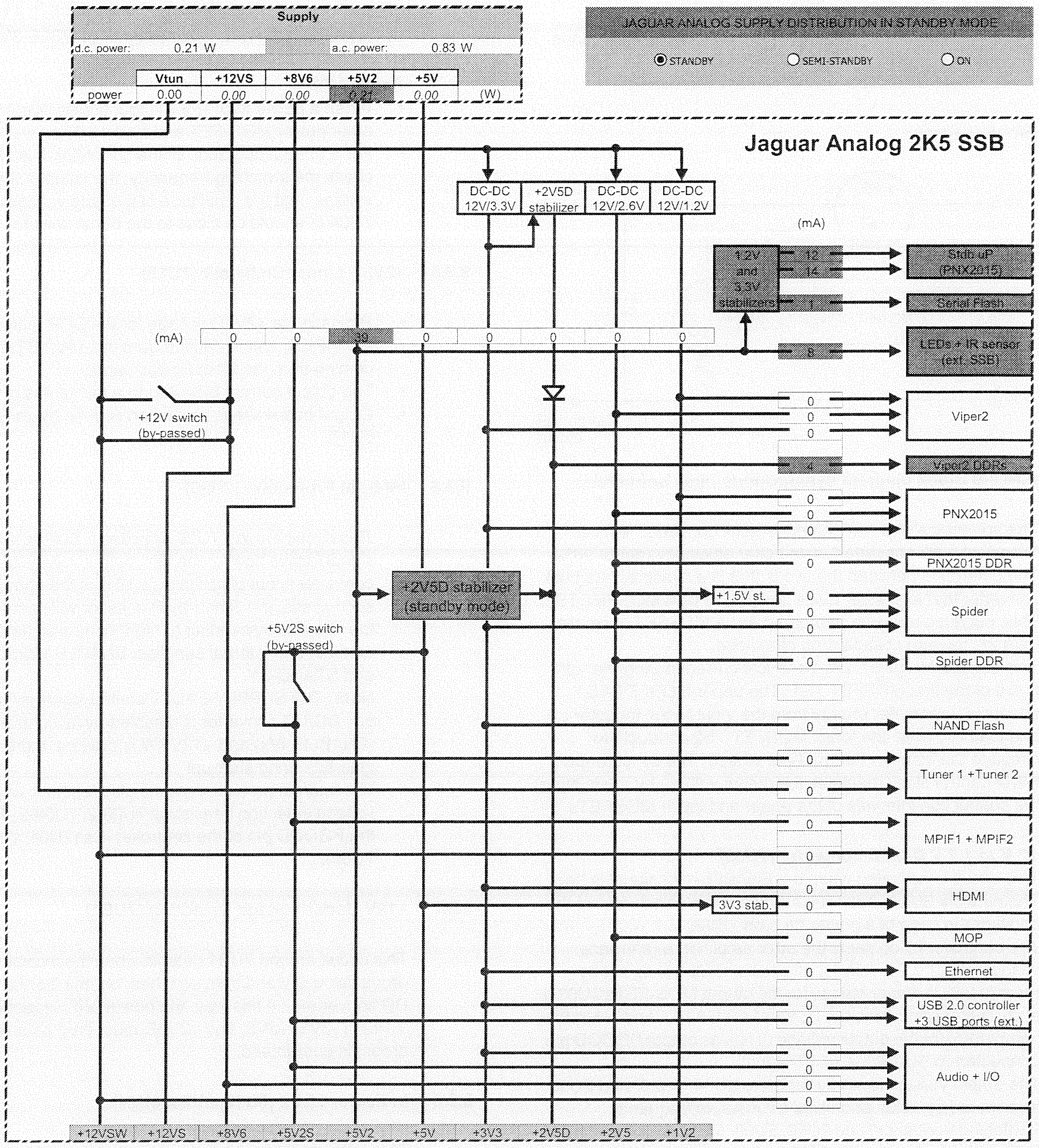

Supply
d.c. power: 0.21 W
a.c. power: 0.83 W
Vtun
+12VS
+8V6
+5V2
+5V
power
0.00
0.00
0.00
0.21
0.00
(W)
JAGUAR ANALOG SUPPLY DISTRIBUTION IN STANDBY MODE
● STANDBY
○ SEMI-STANDBY
○ ON
Jaguar Analog 2K5 SSB
DC-DC 12V/3.3V
+2V5D stabilizer
DC-DC 12V/2.6V
DC-DC 12V/1.2V
(mA)
1.2V and 3.3V stabilizers
12
14
1
8
Stdb uP (PNX2015)
Serial Flash
LEDs + IR sensor (ext. SSB)
(mA)
0
0
39
0
0
0
0
0
+12V switch (by-passed)
Viper2
4
Viper2 DDRs
PNX2015
PNX2015 DDR
+2V5D stabilizer (standby mode)
+1.5V st.
Spider
Spider DDR
+5V2S switch (by-passed)
NAND Flash
Tuner 1 +Tuner 2
MPIF1 + MPIF2
3V3 stab.
HDMI
MOP
Ethernet
USB 2.0 controller +3 USB ports (ext.)
Audio + I/O
+12VSW
+12VS
+8V6
+5V2S
+5V2
+5V
+3V3
+2V5D
+2V5
+1V2
F_15710_157.eps
200905

Figure 9-10 Supply distribution: STANDBY Mode (mentioned values are indicative)

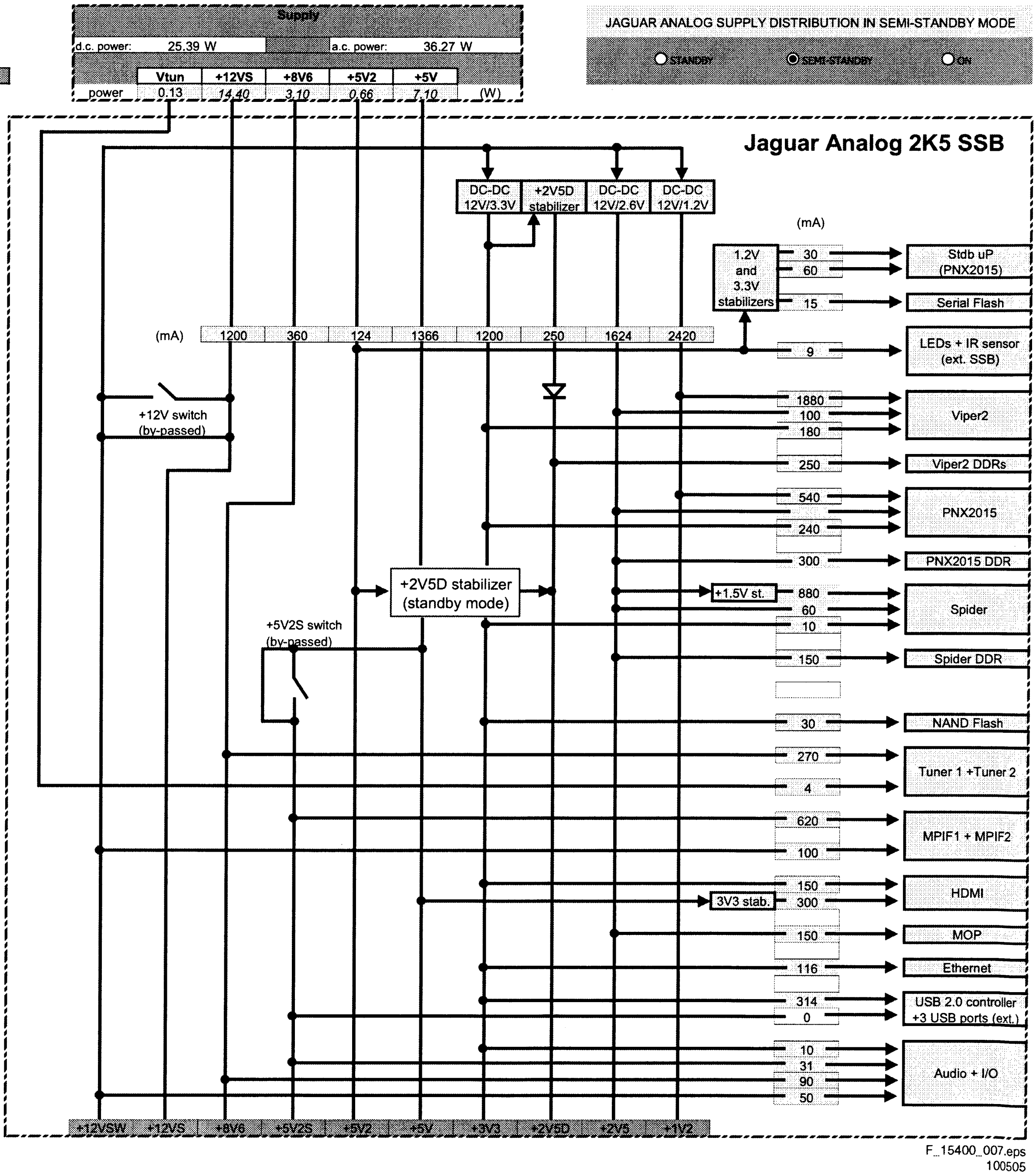
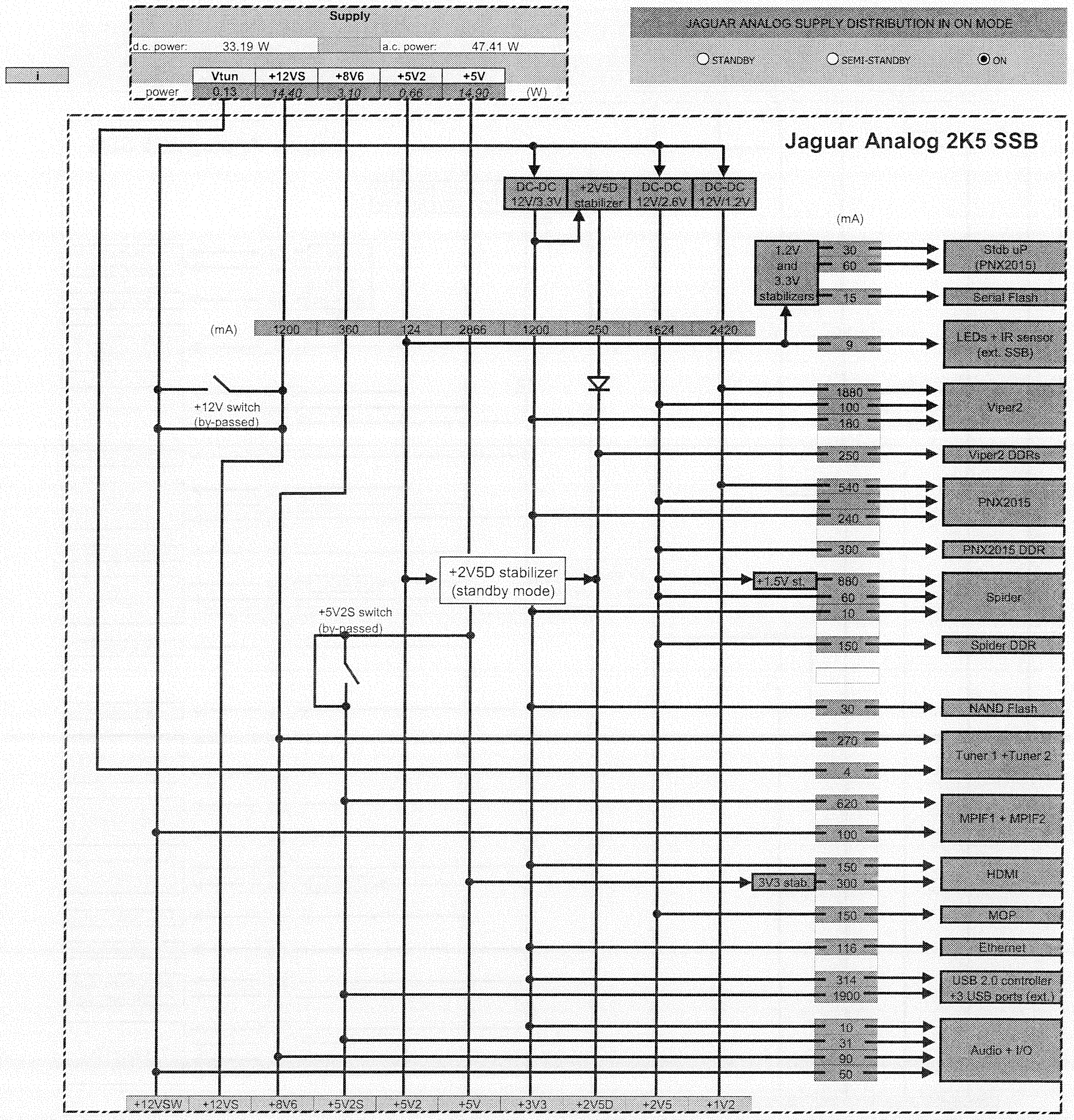

Supply
d.c. power: 25.39 W
a.c. power: 36.27 W
Vtun
+12VS
+8V6
+5V2
+5V
power
0.13
14.40
3.10
0.66
7.10
(W)
JAGUAR ANALOG SUPPLY DISTRIBUTION IN SEMI-STANDBY MODE
○ STANDBY
● SEMI-STANDBY
○ ON
Jaguar Analog 2K5 SSB
DC-DC 12V/3.3V
+2V5D stabilizer
DC-DC 12V/2.6V
DC-DC 12V/1.2V
(mA)
1.2V and 3.3V stabilizers
30
60
15
Stdb uP (PNX2015)
Serial Flash
(mA)
1200
360
124
1366
1200
250
1624
2420
9
LEDs + IR sensor (ext. SSB)
+12V switch (by-passed)
1880
100
180
Viper2
250
Viper2 DDRs
540
240
PNX2015
300
PNX2015 DDR
+2V5D stabilizer (standby mode)
+1.5V st.
880
60
10
Spider
+5V2S switch (by-passed)
150
Spider DDR
30
NAND Flash
270
4
Tuner 1 +Tuner 2
620
100
MPIF1 + MPIF2
150
3V3 stab.
300
HDMI
150
MOP
116
Ethernet
314
0
USB 2.0 controller +3 USB ports (ext.)
10
31
90
50
Audio + I/O
+12VSW
+12VS
+8V6
+5V2S
+5V2
+5V
+3V3
+2V5D
+2V5
+1V2
F_15400_007.eps
100505

Figure 9-11 Supply distribution: SEMI STDBY Mode (mentioned values are indicative)


i
Supply
d.c. power: 33.19 W
a.c. power: 47.41 W
Vtun
+12VS
+8V6
+5V2
+5V
power
0.13
14.40
3.10
0.66
14.90
(W)
JAGUAR ANALOG SUPPLY DISTRIBUTION IN ON MODE
○ STANDBY
○ SEMI-STANDBY
● ON
Jaguar Analog 2K5 SSB
DC-DC 12V/3.3V
+2V5D stabilizer
DC-DC 12V/2.6V
DC-DC 12V/1.2V
(mA)
1.2V and 3.3V stabilizers
(mA)
1200
360
124
2866
1200
250
1624
2420
+12V switch (by-passed)
+2V5D stabilizer (standby mode)
+5V2S switch (by-passed)
+1.5V st.
3V3 stab.
30
60
15
9
1880
100
180
250
540
240
300
880
60
10
150
30
270
4
620
100
150
300
150
116
314
1900
10
31
90
50
Stdb uP (PNX2015)
Serial Flash
LEDs + IR sensor (ext. SSB)
Viper2
Viper2 DDRs
PNX2015
PNX2015 DDR
Spider
Spider DDR
NAND Flash
Tuner 1 +Tuner 2
MPIF1 + MPIF2
HDMI
MOP
Ethernet
USB 2.0 controller +3 USB ports (ext.)
Audio + I/O
+12VSW
+12VS
+8V6
+5V2S
+5V2
+5V
+3V3
+2V5D
+2V5
+1V2

F_15710_159.eps
200905

Figure 9-12 Supply distribution: ON Mode (mentioned values are indicative)

9.4 Inputs

9.4.1 USB

This chassis features USB2.0. It is hosted by a separate IC (7N00, diagram B13A) which communicates with the VIPER via a PCI bus.
Each USB port has four lines:
1. 5V (red).
2. D- (white).
3. D+ (green).
4. GND (black).

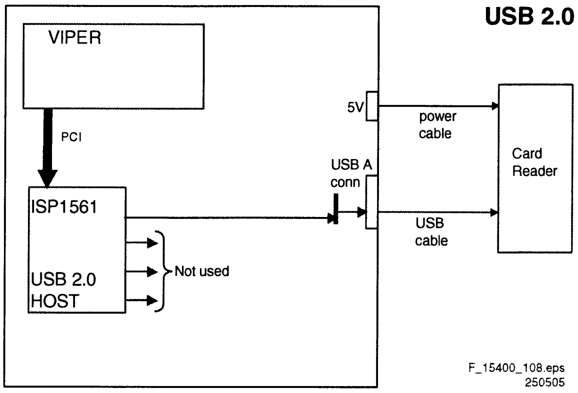

USB 2.0
VIPER
PCI
ISP1561
USB 2.0
HOST
Not used
5V
USB A
conn
power
cable
USB
cable
Card
Reader
F_15400_108.eps
250505

Figure 9-13 USB configuration

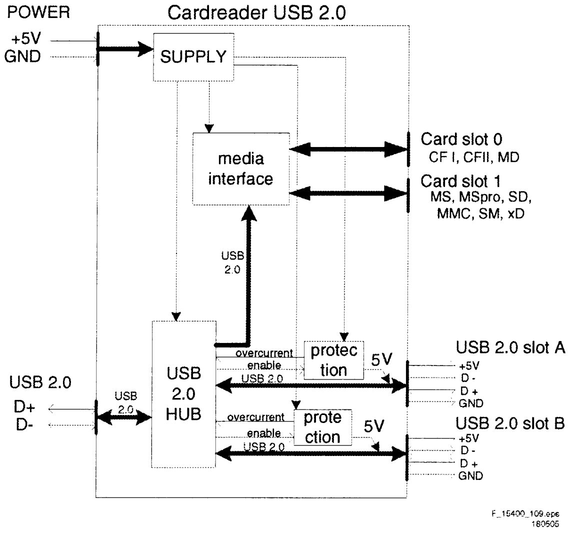

POWER
+5V
GND
Cardreader USB 2.0
SUPPLY
media
interface
Card slot 0
CF I, CFII, MD
Card slot 1
MS, MSpro, SD,
MMC, SM, xD
USB
2.0
USB 2.0
D+
D-
USB
2.0
USB
2.0
HUB
overcurrent
enable
USB 2.0
protec
tion
5V
USB 2.0 slot A
+5V
D-
D+
GND
overcurrent
enable
USB 2.0
prote
ction
5V
USB 2.0 slot B
+5V
D-
D+
GND
F_15400_109.eps
180505

Figure 9-14 Multimedia card reader assy

USB2.0

A tandem USB connector (1H01) is mounted on the SSB, on which you can connect two USB devices (each port has a D+ and D- line; this is the differential signal path for USB); one device (hub) is the card-reader; only USB mass storage class device is supported, so other USB devices (card-readers) have to be compliant with this class.
The host (= SSB) needs to provide the power supply (coming from the Stand-by Supply) to the attached devices (like memory cards or other USB devices). Since it is not known what the customer will attach (e.g. a USB hub with multiple USB devices), and these USB devices draw current from the SSB, these supply lines must be protected against over-current and/or too many connected devices. Upon detecting an over-current condition, the hub device reports the over-current condition to the host and disables the power supply to the downstream port. This protection is done on a per-port basis. There are two downstream USB ports where the customer can attach bus-powered devices, two card slots and internal logic that needs power. So, the card reader is a self-powered device with a separate power connection (max. 1900 mA):
- Downstream USB port A: max. 500 mA
- Downstream USB port B: max. 500 mA
- Media interface: max. 500 mA

9.4.2 HDMI

Introduction

Note: Text below is an excerpt from the"HDMI Specification" that is issued by the HDMI founders (see *http://www.hdmi.org*).

This High-Definition Multimedia Interface is developed for transmitting digital television audiovisual signals from DVD players, set-top boxes and other audiovisual sources to television sets, projectors and other video displays.
HDMI can carry high quality multi-channel audio data and can carry all standard and high-definition consumer electronics video formats. Content protection technology is available. HDMI can also carry control and status information in both directions.

As shown in the HDMI block diagram, the HDMI connector carries four differential pairs that make up the TMDS (Transition Minimized Differential Signalling) data and clock channels. These channels are used to carry video, audio, and auxiliary data. In addition, HDMI carries a VESA DDC channel. The DDC is used for configuration and status exchange between a single source device and a single sink device.

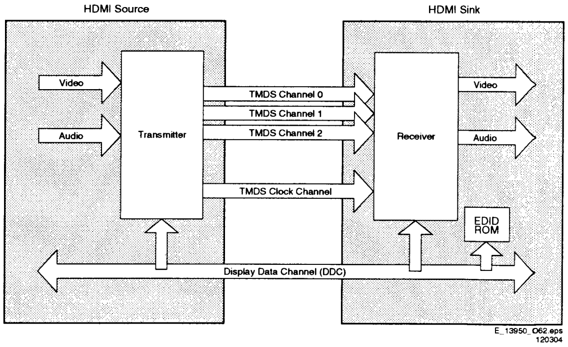

HDMI Source
HDMI Sink
Video
Audio
Transmitter
TMDS Channel 0
TMDS Channel 1
TMDS Channel 2
TMDS Clock Channel
Receiver
Video
Audio
EDID
ROM
Display Data Channel (DDC)
E_13950_062.eps
120304

Figure 9-15 HDMI block diagram

Audio, video, and auxiliary data is transmitted across the three TMDS data channels. The video pixel clock is transmitted on the TMDS clock channel and is used by the receiver as a frequency reference for data recovery on the three TMDS data channels.

Video data is carried as a series of 24-bit pixels on the three TMDS data channels. TMDS encoding, converts the 8 bits per channel into the 10 bit DC-balanced transition minimized sequence, which is then transmitted serially across the pair at a rate of 10 bits per pixel clock period.
Video pixel rates can range from 25 MHz to 165 MHz. Video formats with rates below 25 MHz (e.g. 13.5 MHz for 480i/NTSC) can be transmitted using a pixel-repetition scheme. The video pixels can be encoded in either RGB, YC_BC_R 4:4:4, or YC_BC_R 4:2:2 formats. In all three cases, up to 24 bits per pixel can be transferred.

In order to transmit audio and auxiliary data across the TMDS channels, HDMI uses a packet structure. In order to attain the higher reliability required of audio and control data, this data is protected with a BCH error correction code and is encoded

using a special error reduction coding to produce the 10-bit word that is transmitted.
Basic audio functionality consists of a single IEC 60958 audio stream at sample rates of 32 kHz, 44.1 kHz, or 48 kHz. This can accommodate any normal stereo stream. Optionally, HDMI can carry a single such stream at sample rates up to 192 kHz or from two to four such streams (3 to 8 audio channels) at sample rates up to 96 kHz. HDMI can also carry IEC 61937 compressed (e.g. surround-sound) stream at sample rates up to 192 kHz.

The DDC is used by the source to read the sink's Enhanced Extended Display Identification Data (E-EDID) in order to discover the sink's configuration and/or capabilities.

HDMI is backward compatible with DVI (1.0). Compared with DVI, HDMI offers extra:
- YUV 4:4:4 (3 x 8-bit) or 4:2:2 (up to 2 x 12-bit), where DVI offers only RGB 4:4:4 (3 x 8 bit).
- Digital audio in CD quality (16-bit, 32/44.1/48 kHz), higher quality available (8 channels, 192 kHz).
- Remote control via CEC bus (Consumer Electronics Control): allows user to control all HDMI devices with the TV's remote control and menus.
- Smaller connector (SCART successor).
- Less cables: e.g. from 10 audio/9 video cables to 3 HDMI cables.

Implementation
The IC used is the TDA9975 (triple 10-bit video converter interface), item 7B11 on the SSB.
- Power supply: 3V3 and 1V8.
- Inputs:
  - HDMI connectors (Video, Audio, HDCP, Control).
  - Analogue (YPbPr, RGB, and H/V).
- Control signals:
  - I^2C coming from TDA9975 (MM-BUS1).
  - 13.5 MHz clock for analog format detection.
  - JTAG.
- Output to PNX2015: Video (DV4 and DV5):
  - YUV 4:2:2 20 bit (10 bit Y, 10 bit UV multiplexed) + clock + sync.
  - ITU-656 (compressed DVD video) encoded in data stream.
- Output to VIPER:
  - Audio: S/PDIF.
  - Interrupt signal.

Data Content

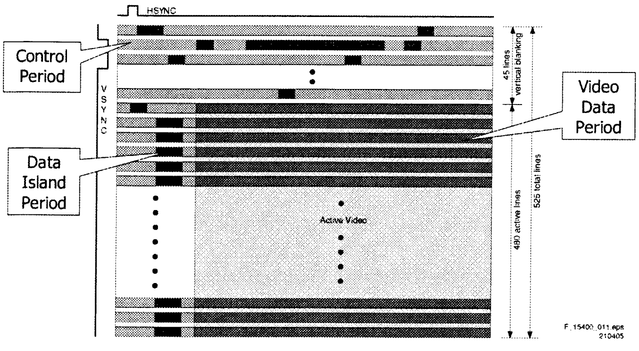


Figure 9-16 Typical video frame

A typical video frame is built up with the following info blocks:
- Control Period.
  - Transmission of the pre-amble.
  - Character synchronization.
- Data Island Period.
  - Audio and auxiliary information are carried in packets within a Data Island.
  - HSYNC, VSYNC are also carried during Data Island Period.
  - Packet Types:
    - Audio Sample.
    - Audio Clock Recovery.
    - InfoFrame: Aux. Video IF, Audio IF, MPEG IF, vendor-defined IF.
- Video Data Period.
  - Carries the pixels of an active video line.
  - TMDS encoding.

Data Islands: Audio Formats
- All current CE audio formats can be transmitted.
- Supports compressed formats like:
  - Dolby Digital.
  - Dolby Digital EX (THX-EX).
  - DTS.
  - Etc.
- Supports uncompressed formats ("discrete" PCM audio):
  - Up to 8 channels, up to 192 kHz, up to 24 bits.
- CD-quality audio is always available, so the user will always hear sound.
  - 2 channel, 16 bit at 32 kHz (STB), 44.1kHz (CD), or 48 kHz (DVD)

Data Islands: InfoFrames (EIA/CEA-861B)
- Auxiliary Video Information (AVI):
  - Specifies active aspect ratio, colorimetric info, pixel encoding, etc.
- Audio InfoFrame:
  - Describes audio stream, speaker/channel allocation, etc.
- Source Product Info:
  - Contains manufacturer name, product name, type, etc. (replaced by CEC).
- MPEG Source:
  - Contains flags that permit optimized display of de-compressed video.
- Vendor unique info.

Content Protection: HDCP
- HDCP (High-bandwidth Digital Content Protection) for HDMI encrypts and protects video, audio, and other auxiliary data.
- If a source device is HDCP coded and is connected to a HDTV display or projector via DVI/HDMI without the proper HDCP decoding mechanism, the picture is relegated to "snow" or in some cases, a very low (480p) resolution. In order to see HDTV with HDCP compliance, both the source and display devices must be equipped with DVI/HDMI connections that can enable HDCP using "software key" decoding.
- HDCP requires that decoding takes place in the display device (no external converters).

CEC Bus (Consumer Electronics Control)
- This is the successor of the P50 protocol.
- It allows the user to control all HDMI devices with the TV's remote control and menus.
- High-level functions such as "One-touch play".
- Optional for device to implement protocol.
- Mandatory to implement wire pass-through.

9.5 MPIF (PNX 3000)

9.5.1 Introduction

The MPIF (Multi Platform InterFace, type number PNX3000, item number 7C00) is an analogue video and audio pre-processing unit for the AVIP TV processor. It contains the high frequent IF part and all the analog video and audio source switching for external in- and outputs. The MPIF can handle CVBS, Y/C, RGB (1fH/2fH) and YPbPr (1fH/2fH) video signals as well as stereo, I^{2}S, and second sound IF audio signals. The MPIF converts the selected video and audio streams from the analog to the digital domain. Via three high-speed serial data links (I^{2}D), the digitized audio and video signals are streamed (594 Mbit/s) to the AVIP IC for further processing.
The MPIF uses a clock coming from the AVIP of 13.5 MHz (CLK_MPIF) and is I^{2}C driven. The supply voltage for the MPIF is 5V.

The MPIF uses the following input signals:
- CVBS, Y/C, YPbPr, or RGB video format.
- 1fH or 2fH video.
- Clock 13.5 MHz from the AVIP.
- I^{2}C from the VIPER.
- Clamping-pulse from the AVIP.

9.5.2 Block Diagram

Following figure shows the MPIF block diagram:

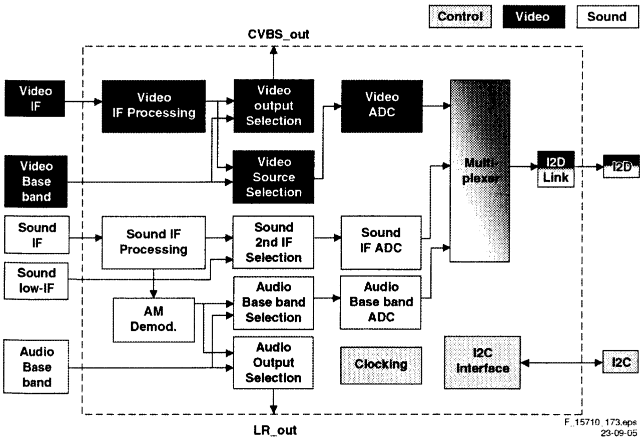

Control
Video
Sound
CVBS_out
Video IF
Video IF Processing
Video output Selection
Video ADC
Video Base band
Video Source Selection
Multi-plexer
I2D Link
I2D
Sound IF
Sound IF Processing
Sound 2nd IF Selection
Sound IF ADC
Sound low-IF
AM Demod.
Audio Base band Selection
Audio Base band ADC
Audio Base band
Audio Output Selection
Clocking
I2C Interface
I2C
LR_out
F_15710_173.eps
23-09-05

Figure 9-17 MPIF block diagram

9.5.3 IF Processing

The MPIF is capable of demodulation of RF signals.

Analogue Vision IF Processing
Some specifications:
- Synchronous demodulation of the IF vision carrier. Selectable frequency and auto-calibration of the VCO (Voltage controlled oscillator).
- Group delay correction for BG system.
- AGC at vision IF level to give fixed CVBS output level, and AGC at RF level (tuner AGC) to limit output level of the tuner.
- AGC gating for bad reception conditions.
- CVBS amplitude correction and mute.
- Detections for AFC and video presence.

The video signal is demodulated by means of an alignment-free PLL carrier regenerator with an internal VCO. This VCO is calibrated by means of a digital control circuit, which uses an external crystal frequency as reference. The frequency setting for the various standards (33.4, 33.9, 38.0, 38.9, 45.75 and 58.75 MHz) is realized via the I^{2}C bus.
The AFC output is generated by the digital control circuit of the IF-PLL demodulator and can be read via the I^{2}C bus.
The AGC-detector operates on "top sync" or "top white" level.
The MPIF IC has an integrated sound trap filter. The trap frequencies can be switched via the I^{2}C-bus.
Also, a group delay correction filter is integrated. The filter can be switched between the PAL BG curve and a flat group delay response characteristic. This has the advantage that in multi-standard receivers the video SAW filter does not need to be switchable (cost effective).

Analogue Sound IF Processing
Some specifications:
- A switch to select QSS or inter-carrier mode.
- Sound carrier frequency conversion at second IF sound frequency (SSIF)
- A switch to select internal or external SSIF.
- AGC at sound IF level (for QSS (quasi-split-sound) mode) and AGC at SSIF level (for inter-carrier and QSS modes).
- Demodulation of AM modulated carrier (L and L' standards).

The MPIF has a separate sound IF input to enable Quasi Split Sound (QSS) applications. The sound IF amplifier is similar to the vision IF amplifier and has a gain control range of about 55 dB.
The AGC detector measures the SIF carrier levels (average level of AM or FM carriers) and ensures a constant signal amplitude for the AM demodulator and QSS mixer.
For applications without SIF SAW filter, the IC can also be used in intercarrier mode. In this mode, the composite video signal from the VIF amplifier is fed to the QSS mixer and converted to the intercarrier frequency. AM sound demodulation is realized in the analog domain with the QSS mixer.

9.5.4 Source Selection

Below the main functions and features of the main blocks in the MPIF for video and audio are explained.

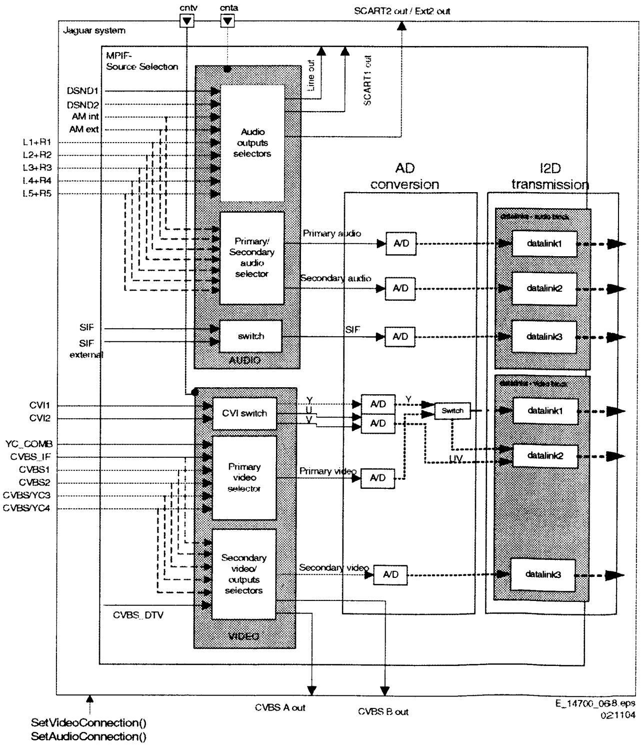

cntv
cnta
SCART2 out / Ext2 out
Jaguar system
MPIF-Source Selection
Line out
SCART1 out
DSND1
DSND2
AM int
AM ext
L1+R1
L2+R2
L3+R3
L4+R4
L5+R5
Audio outputs selectors
AD conversion
I2D transmission
Primary/ Secondary audio selector
Primary audio
Secondary audio
A/D
datalink1
datalink2
datalink3
SIF
SIF external
switch
AUDIO
CVI1
CVI2
CVI switch
Y
U
V
Switch
UV
YC_COMB
CVBS_IF
CVBS1
CVBS2
CVBS/YC3
CVBS/YC4
Primary video selector
Primary video
Secondary video/ outputs selectors
Secondary video
CVBS_DTV
VIDEO
CVBS A out
CVBS B out
SetVideoConnection()
SetAudioConnection()
E_14700_068.eps
021104

Figure 9-18 MPIF analog source selection block

Video Selectors

The CVI switch (Composite Video Input, including RGB, YUV, and YPbPr) is selecting the signal from one of the two CVI inputs; the output is always a YUV signal.
The primary video selector is selecting a signal from the CVBS and YC inputs; the video coding of the output signal equals to the video coding of the input signal.
The primary video selector has an extra input (YC_COMB), capable of selecting an Y/C signal from the comb filter. This input cannot be downscaled to a CVBS signal and fed back to the CVBS_A or CVBS_B output. It is also advisable not to connect other sources to the YC_COMB input because it is treated as an internal one that is not available for the outside world.
Two video output selectors are responsible for the contents of CVBS_A and CVBS_B video out.

Audio Selectors

The primary audio selector is selecting a signal from five external stereo inputs and one stereo input that handles two mono signals (AM internal and AM external). The AM internal signal is demodulated in the IF part and is internally routed, so not available as external input. Additionally, the AM internal signal is available on the left channel whereas the AM external signal is available on the right channel.
The secondary audio selector is selecting a signal from the same range as the primary audio selector; the second audio selector can work in stereo or mono mode. In case the stereo mode is selected, it is alike the primary audio selector. In mono mode, the input stereo signal L+R is transformed into a mono signal (L+R)/2 and put on the left channel of the stereo output. When the stereo input (handling two mono signals) is selected and the selector works in mono mode, the AMint and AMext can be swapped on the primary as well as on the secondary audio channel. It is also possible to digitize the mono + AM on the secondary audio channel.
Further it is possible to select the AM signal on the analog audio outputs independently from the AM signal that is selected for the secondary (digital) audio channel.
Three audio output selectors are responsible for the content of the Line, SCART1, and SCART2 outputs. These selectors allow selection of the output out of five L+R inputs, two mono signals (AM internal or AM external) and two externally connected DSND streams.

SIF Switching

SIF (Sound Intermediate Frequency) switching allows selecting between internal or external SIF signals.

AD Converters

The second part of the MPIF is responsible for conversion of the chosen signals into digital signals and grouping them into three data streams. Each data stream handles both video and audio. These data streams are fed into three data links and send via I2D to the outside.

The MPIF contains four video ADCs for analog and digital video broadcast signals. The clock frequency for these ADCs is either 27 MHz or 54 MHz. In some cases, two analog signals are multiplexed at the input of one ADC. In these cases, the clock frequency of the ADCs is 54 MHz, while the sample frequency for each of the two signals is 27 MHz.

The sample frequency for standard 1fH video signals is 27 MHz. For the YUV channel the sample frequency of the U and V components is half the sample frequency of the Y signal.
For 2fH YPbPr or RGB input signals (for instance 480p or 1080i ATSC signals), the frequency that is used to sample the YUV signals is twice as high as for 1fH signals. The sample frequency is 54 MHz for Y and 27 MHz for U and V.
Due to the high sample frequency, two data links are needed for transport of the video data to the digital video processor.

I^2D Data Link

The digital interface between MPIF and AVIP is called Data Link (or I^2D Link). This is a serial interface that transfers the data from MPIF to AVIP over three Data Link interfaces. Each Data Link has a data signal and a strobe signal. The synchronization information is distributed over the data and the strobe signal. To minimize EMC, both signal outputs are low voltage differential swing signals, with a swing of about 300 mV.
Each Data Link has four lines, one differential pair for the data, and one differential pair for the strobe. The data rate is 594 Mbit/s. Each Data Link can carry two 27 MHz sampled video streams (or one 54 MHz sampled 2fH video stream) and two audio channels sampled at 6.75 MHz.

In the MPIF, the (video and audio) data to be transmitted is multiplexed in an output register of 44 bits (including the 2 bit sync information). The content of that 44 bits register is serial transmitted on one of the three data links. In the AVIP, the serial data is de-multiplexed into parallel streams. The data on the data link is divided in several groups of signals (video, audio and strobe signals). Obvious it is important that the transmitter and receiver are in the same transmitting mode

Data links can operate in two different modes called:
1. Normal mode.
2. YUV2fH.

Normal Mode
In the normal mode the content of the data links is as follows:

Table 9-2 Normal mode

Data Stream	Video	Audio
1	CVBS/YC primary	(L+R) primary
2	YUV 1fH	(L+R) secondary
3	CVBS secondary	SIF
Data link Mode bit: DM= 0		

In the normal mode the data links can handle up to three video signals: CVBS or YC signal from the primary video selector, CVI 1fH source selected on the CVI switch, and CVBS signal from the secondary video selector.

YUV 2fH Mode
In the YUV 2fH mode (higher bandwidth signal) the data links content is as follows:

Table 9-3 YUV 2fH mode

Data Stream	Video	Audio
1	Y 2fH	(L+R) primary
2	UV 2fH	(L+R) secondary
3	CVBS secondary	SIF
Data link Mode bit: DM= 1		

The data link 1 can output only one of two input signals: the output of the primary video selector or the Y output of the CVI switch. Only one can be active at a moment, and that is determined by the data link mode bit (DM). It means, that for data links working in YUV 2fH mode, the data link 1 carries the Y component of the YUV 2fH signal, the data link 2 carries the UV component, and the data link 3 contains the signal that is connected through the secondary video selector.

9.6 PNX2015

The functional blocks of the PNX2015 (item 7J00) are:
- Audio Video Input Processor (AVIP).
- 3D Comb Filter (COLUMBUS).
- High Definition MPEG Decoder (HD Subsystem).
- LVDS transmitter.
- Stand-by Processor for low-power control.

BLOCK DIAGRAM

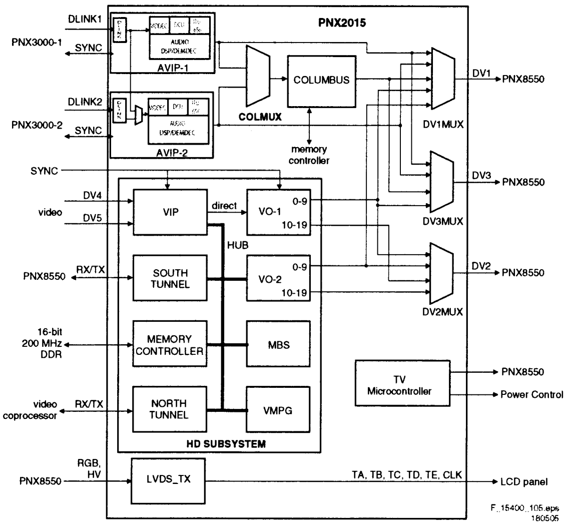

DLINK1
PNX3000-1
SYNC
AVIP-1
AUDIO DSP/DEMDEC
PNX2015
COLUMBUS
COLMUX
memory controller
DV1
PNX8550
DV1MUX
DLINK2
PNX3000-2
SYNC
AVIP-2
AUDIO DSP/DEMDEC
SYNC
DV4
video
DV5
VIP
direct
VO-1
0-9
10-19
HUB
DV3
PNX8550
DV3MUX
PNX8550
RX/TX
SOUTH TUNNEL
VO-2
0-9
10-19
DV2
PNX8550
DV2MUX
16-bit 200 MHz DDR
MEMORY CONTROLLER
MBS
TV Microcontroller
PNX8550
Power Control
video coprocessor
RX/TX
NORTH TUNNEL
VMPG
HD SUBSYSTEM
RGB, HV
PNX8550
LVDS_TX
TA, TB, TC, TD, TE, CLK
LCD panel
F_15400_105.eps
180505

Figure 9-19 Block diagram PNX2015

These different blocks are described separately in the next paragraphs.

9.7 PNX2015: AVIP

9.7.1 Introduction

The AVIP (Audio Video Input Processor) receives the digital data via the I^{2}D link (coming from MPIF). It reformats this data and maps (synchronizes) the data to the clock of the AVIP. Then a digital AGC is passed. After this, the video decoding is performed in the VIDDEC-block of the AVIP. The decoded video is sent to an output block, which formats the data to an ITU-656 compatible standard data stream.
The AVIP power supply is 1.2 V and 3.3 V. To ensure synchronization of video streams processed across the VIPER and PNX2015 devices, a 27 MHz is coming from the VIPER. The AVIP is I^{2}C driven.
Initialization of this IC begins with a hard reset (MIPS-RESET) provided by the VIPER. Besides video decoding, the AVIP is also used for decoding and presentation of all audio output streams in the system.

9.7.2 Block Diagrams

Below the main functions and features in the AVIP for video and audio are given.

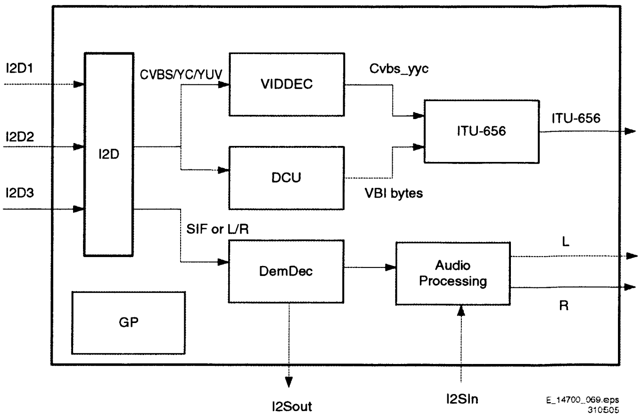

I2D1
I2D2
I2D3
I2D
CVBS/YC/YUV
VIDDEC
Cvbs_yyc
ITU-656
ITU-656
DCU
VBI bytes
SIF or L/R
DemDec
Audio Processing
L
R
GP
I2Sout
I2SIn
E_14700_069.eps
310505

Figure 9-20 AVIP block diagram

Main AVIP function:
- I^{2}D receiver.
- Colour decoding into ITU-601 compatible format (1fH/2fH).
- Interface with 3D comb filter (called Columbus in this chassis).
- VBI data capture via DCU (Teletext, CC, etc.).
- ITU-656 formatting.
- Audio demodulation and decoding via DEMDEC.
- Audio processing and D/A conversion.

I^{2}D Receiver

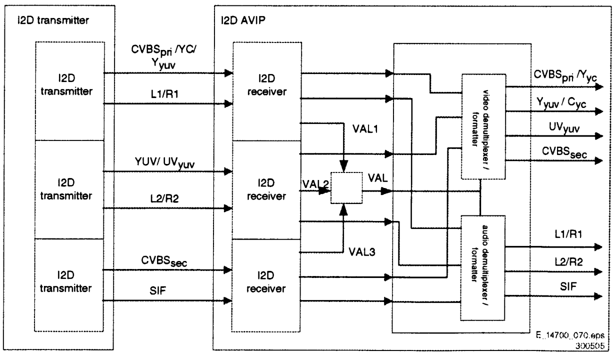

I2D transmitter
I2D transmitter
I2D transmitter
I2D transmitter
$CVBS_{pri}$ /YC/ Y_{yuv}
L1/R1
YUV/ UV_{yuv}
L2/R2
$CVBS_{sec}$
SIF
I2D AVIP
I2D receiver
I2D receiver
I2D receiver
VAL1
VAL2
VAL
VAL3
video demultiplexer / formatter
audio demultiplexer / formatter
$CVBS_{pri}$ /Y_{yc}
Y_{yuv} / C_{yc}
UV_{yuv}
$CVBS_{sec}$
L1/R1
L2/R2
SIF
E_14700_070.eps
300505

Figure 9-21 I^{2}D receiver block diagram

The receiver block gets the serial data stream and converts it to a parallel stream. This parallel data is fed to the "de-multiplexer and formatter " block where the selected audio/ video stream is forwarded to the video and audio decoder for further processing. This communication bus is completely digital and very difficult to monitor.

The I^{2}D link has the following characteristics.
- The data-link runs at 297 MHz / 594 Mbps.
- The driver rise/fall time is around 200 ps.
- The data-link uses differential signals.

VIDDEC (Video Decoder)

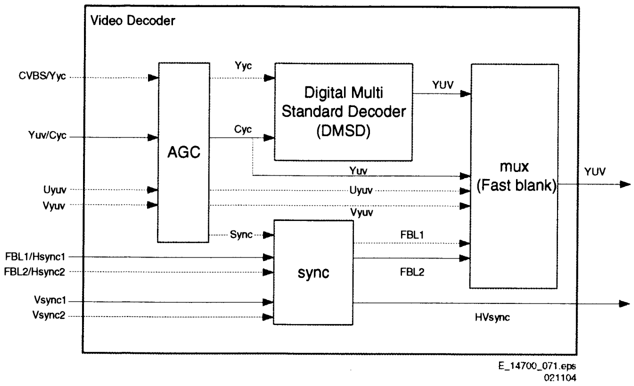

Video Decoder
CVBS/Yyc
Yuv/Cyc
Uyuv
Vyuv
FBL1/Hsync1
FBL2/Hsync2
Vsync1
Vsync2
AGC
Yyc
Cyc
Digital Multi Standard Decoder (DMSD)
YUV
Yuv
Uyuv
Vyuv
Sync
sync
FBL1
FBL2
mux (Fast blank)
YUV
HVsync
E_14700_071.eps
021104

Figure 9-22 VIDDEC block diagram

The CVBS/YC/YUV signals (coming from the I²D receiver block) enter the DMSD block (Digital Multi Standard Decoder) via the AGC (Automatic Gain Control) block. The multiplexer block (MUX) takes care of the correct output signal. The sync signals are processed in the sync block.

The VIDDEC has the following main functions:

- Multi standard colour decoder.
- Automatic system recognition.
- Fully programmable static or automatic (AGC) for all analog video base band signals.
- AGC on sync amplitude in digital domain.
- Selectable peak white control.
- AGC for chrominance (PAL and NTSC only).
- Programmable Luminance and Chrominance bandwidth for CVBS and Y/C sources.
- Programmable clamp window for the selected video base band signals.
- Digital PLL for synchronization on 2fH and ATSC standards.
- Horizontal (including 3-level sync for 2fH) and vertical sync detection.
- Automatic detection of 50/60Hz ATSC field frequency.
- Adaptive 2/4-line delay comb filter for two-dimensional Chrominance/Luminance separation.
- Copy protected source detection according to MacroVision up to version 7.01
- Possibility of RGB insertion through fast blanking in CVBS input mode, not in Y/C.

DCU (Data Capturing Unit)

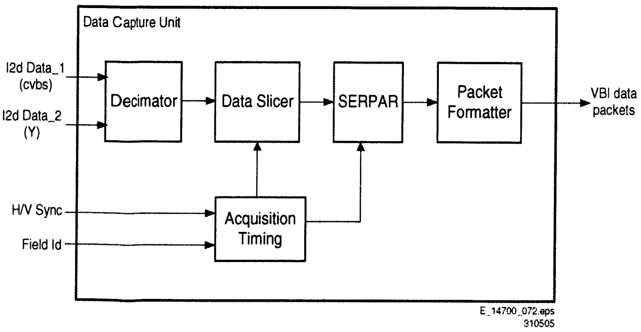

Data Capture Unit
I2d Data_1 (cvbs)
I2d Data_2 (Y)
H/V Sync
Field Id
Decimator
Data Slicer
SERPAR
Packet Formatter
VBI data packets
Acquisition Timing
E_14700_072.eps
310505

Figure 9-23 DCU block diagram

The purpose of this block is to acquire digital data (containing Teletext, Closed Captions, ...) from a CVBS/Y/C video input source. It performs processing on the received data and provides the data to the ITU-656 formatter unit.
The decimator reduces the sample rate (from 27 MHz to 13.5 MHz) of the incoming digitized CVBS or Y data stream from the I²D receiver. From the video input, the data slicer reconstructs the transmitted bit stream and associated clock. The SERPAR block converts the serial bits, coming from the data slicer, into parallel bytes. The packet processor performs data decoding and some error correction, assembles received bytes into packet structure, and streams out the data to the ITU-656 formatter.
The acquisition-timing block locks onto sync signals, and provides timing information to the other blocks of the data capture unit.

ITU656 Output Formatter

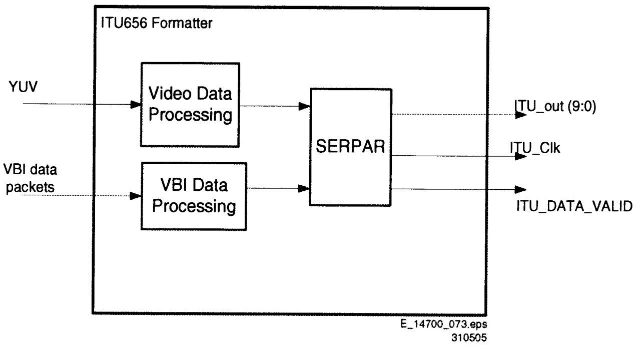

ITU656 Formatter
YUV
VBI data packets
Video Data Processing
VBI Data Processing
SERPAR
ITU_out (9:0)
ITU_Clk
ITU_DATA_VALID
E_14700_073.eps
310505

Figure 9-24 ITU656 formatter block diagram

The ITU656 formatter gets YUV data as video input signal, coming from the VIDDEC block. These YUV data are either decoded CVBS signals, matrixed RGB signals, or YUV input signals. The second input data are VBI sliced data coming from the DCU. The output of the ITU delivers a data stream, which is ITU-601/656/1364 compliant, and includes video as well as the VBI data.

DEMDEC (Demodulator and Decoder)

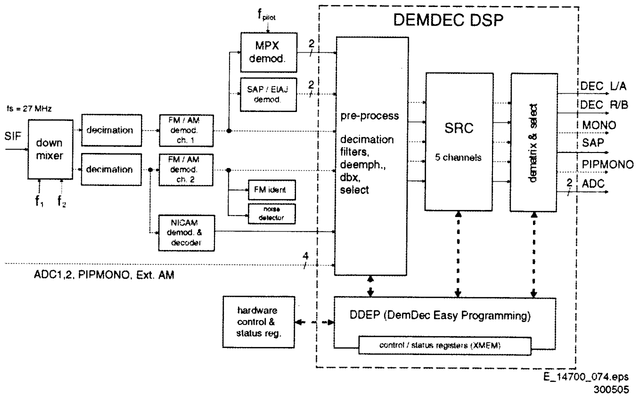

DEMDEC DSP
f_{pilot}
MPX demod.
SAP / EIAJ demod.
fs = 27 MHz
SIF
down mixer
f_1
f_2
decimation
decimation
FM / AM demod. ch. 1
FM / AM demod. ch. 2
FM ident
noise detector
NICAM demod. & decoder
ADC1,2, PIPMONO, Ext. AM
2
2
4
pre-process
decimation filters, deemph., dbx, select
SRC
5 channels
dematrix & select
DEC_L/A
DEC_R/B
MONO
SAP
PIPMONO
2
ADC
hardware control & status reg.
DDEP (DemDec Easy Programming)
control / status registers (XMEM)
E_14700_074.eps
300505

Figure 9-25 DEMDEC block diagram

The demodulator and decoder (DEMDEC) is responsible for demodulating and decoding incoming SIF signals.

The main features of the DEMDEC are:

- Auto Standard Detection (ASD).
- DQPSK demodulation for different standards, simultaneously with 1-channel demodulation.
- NICAM decoding (B/G, I, D/K, and L standard).
- Two-carrier multi standard FM demod. (B/G, D/K and M).
- Optional AM demodulation for system L, simultaneously with NICAM.
- Identification A2 systems (B/G, D/K and M standard) with different identification time constants.
- FM pilot carrier present detector.
- BTSC MPX decoder.
- SAP decoder.
- dBx noise reduction.
- Japan (EIAJ) decoder.
- FM radio decoder.

Audio Processing

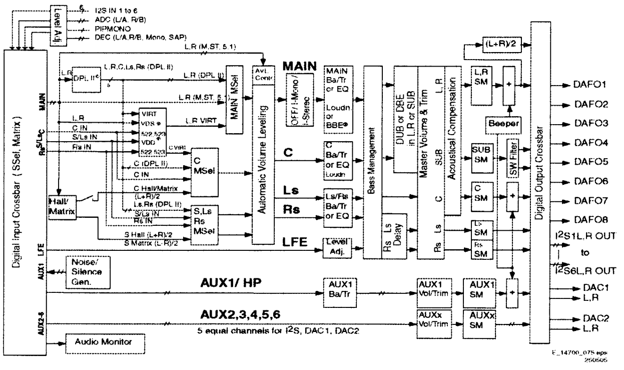

I2S IN 1 to 6
ADC (L/A, R/B)
PIPMONO
DEC (L/A,R/B, Mono, SAP)
Level Adj.
Digital Input Crossbar (SSel, Matrix)
MAIN
S/Ls
C
Rs
LFE
AUX1
AUX2-6
L,R (M,ST, 5.1)
L,R
DPL II®
L,R,C,Ls,Rs (DPL II)
L,R (DPL II)
L,R (M,ST, 5.1)
L,R
C IN
S/Ls IN
Rs IN
VIRT
VDS ®
522,523
VDD ®
522,523
L,R VIRT
C VIRT
MAIN MSel
C (DPL II)
C IN
C Hall/Matrix
(L+R)/2
C MSel
Hall/ Matrix
Ls,Rs (DPL II)
S/Ls IN
Rs IN
S Hall (L+R)/2
S Matrix (L-R)/2
S,Ls Rs MSel
AVL Contr.
Automatic Volume Leveling
MAIN
OFF / I-Mono / I-Stereo
MAIN Ba/Tr or EQ Loudn. or BBE®
C
C Ba/Tr or EQ Loudn
Ls
Rs
Ls/Rs Ba/Tr or EQ
LFE
Level Adj.
Noise/ Silence Gen.
AUX1/ HP
AUX1 Ba/Tr
AUX2,3,4,5,6
5 equal channels for I2S, DAC1, DAC2
Audio Monitor
Bass Management
Rs Ls Delay
DUB or DBE in L,R or SUB
Master Volume & Trim
L,R
SUB
C
Ls
Rs
Acoustical Compensation
(L+R)/2
L,R SM
SUB SM
C SM
Ls SM
Rs SM
Beeper
SW Filter
+
AUX1 Vol/Trim
AUXx Vol/Trim
AUX1 SM
AUXx SM
Digital Output Crossbar
DAFO1
DAFO2
DAFO3
DAFO4
DAFO5
DAFO6
DAFO7
DAFO8
I2S1L,R OUT
to
I2S6L,R OUT
DAC1
L,R
DAC2
L,R
E_14700_075.eps
250505

Figure 9-26 Audio processing block diagram

Main features are:

- Master volume control and Balance.
- Tone control (Loudness, Bass, Treble, Equalizer).
- Dolby ProLogic delay.
- Incredible Mono and Stereo.
- Virtual Dolby Surround (VDS 522, 523).
- Virtual Dolby Digital (VDD 522, 523).
- Digital audio I/O interface (stereo I2S input interface).
- Eight audio DACs for six channel loudspeaker outputs and stereo headphones output.
- Audio DACs for stereo SCART output and stereo LINE output.
- Serial data link interface for interfacing with the analog multi-purpose interface IC PNX3000 (MPIF).

9.8 PNX2015: Columbus (Comb Filter)

9.8.1 Introduction

This block provides the following picture improvement functions:

- Enhanced 2D combing for PAL and NTSC.
- 3D field combing for PAL and NTSC.
- 3D frame combing for PAL and NTSC.
- Spatial noise reduction for all component video standards.
- Temporal noise reduction for all component video standards.

The comb filter is controlled via a separate I^{2}C interface on the PNX2015, this is to ensure registers containing measurement information, are accessed at appropriate times. The measurement information is also available as ancillary data within the video stream (ITU-656).
For certain features of the comb filter, access to external memory is required. The PNX2015 has a unified memory that both comb filter and HD subsystem's share concurrently.

9.8.2 Block Diagram

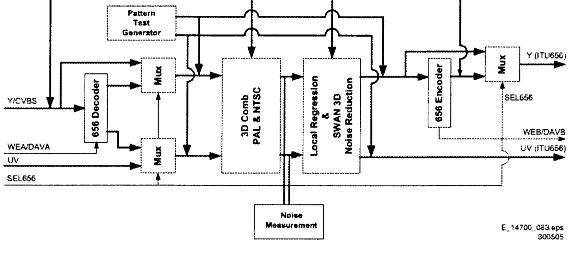

CONTROL
A(11:0)
DQ(16:1)
Memory Interface
656 Test Generator
Pattern Test Generator
Y/CVBS
656 Decoder
WEA/DAVA
UV
SEL656
Mux
Mux
3D Comb PAL & NTSC
Local Regression & SWAN 3D Noise Reduction
Noise Measurement
656 Encoder
Mux
Y (ITU656)
SEL656
WEB/DAVB
UV (ITU656)
E_14700_083.eps
300505

Figure 9-27 COLUMBUS internal block diagram

Figure above, shows a block diagram of the Columbus comb filter in the PNX2015 device. An input video signal is supplied by the AVIP and fed to the Columbus block. The signal is supplied in digitized components of:

- CVBS or Y.
- Uncombed U.
- Uncombed V.

The CVBS signal is combed, extracting the luminance components and rejecting the chroma components. The UV signals are combed, rejecting the left over luminance components, from a previous filtering (normally band pass filtered).

The outputs from the 3D comb filter are:

- Combed luminance signal (Y).
- Combed U signal.
- Combed V signal.

The output from the 3D comb filter feeds the SWAN and LORE noise reduction block, which performs spatial/temporal noise reduction, for both luminance and chrominance components.

Control Register Interface

The control registers are accessed via I^{2}C. Most signals that can be written via I^{2}C are double buffered. The fast I^{2}C interface implemented on the COLUMBUS is a 5V compliant, 400 kHz slave receiver/transmitter. The I^{2}C will not be blocked during voltage shorts or opens.

For the system dependent parameters of the 3D-Comb filter, five register banks are present. Data can be written in one of the banks via I^{2}C, by programming bits [2:0] of the SYSTEM_SELECT register. The bits [6:4] of the SYSTEM_SELECT register select, which register bank is used by Columbus to define the filter settings.

Bank number	System
0	PAL B, G, H, I, D, K
1	PAL M
2	PAL N
3	NTSC
4	Bypass

Internal Test Generators

There are two test generators inside the COLUMBUS chip:

- The "656 test generator" generates a 656 compliant stream and is used for testing the functionality of the 656 encoder and decoder. The 656 stream can be injected at the front end or the back end of the chip.
- A second internal test pattern generator enables testing of the device and attached external memory (if present). The test pattern generator signal can be inserted at the front end of the chip (passing through the 3D Comb and noise reduction system and external memory) or at the back end of the chip. Test patterns are available for both PAL/SECAM and NTSC systems.

9.9 PNX2015: HD Subsystem

The HD subsystem performs MPEG video decoding on HD/SD transport streams. It interfaces with the PNX8550 (VIPER) and video co-processor (SPIDER) via tunnel interfaces, HD/SD using DV4 and DV5 inputs, and PNX8550 using DV1, DV2 and DV3 outputs. The HD subsystem can also perform a range of video measurements on a transport stream.

9.10 PNX2015: LVDS Transmitter (if used)

Low Voltage Differential Signalling (LVDS) is a low-power, low-noise differential technology for high speed data transmission over two PWB traces, or a balanced cable. LVDS allows single-channel data transmission at hundreds, or even up to a thousand Mbps. Low swing and current-mode driver outputs create low noise and provide very low power consumption across frequency ranges.
The LVDS transmitter IP provides a connection interface to FPDs.

Differences between standard and LVDS signalling:

- Standard single ended signal (TTL):
  - Requires 28 signal lines and more than 14 grounds.
  - Single ended signals up to 3 V.
  - Wide flat ribbon cable.
  - EMI/EMC problems.
  - Feasible up to VGA/NTSC resolution (limited to 250 Mb/s).
- LVDS:
  - Five low voltage (350 mV) differential pairs: one clock pair and four data pairs.
  - Five grounds.
  - EMI/EMC friendly.
  - WXGA and HD-1280x720p (up to 1 Gb/s).

LVDS offers superior performance compared to the standard single ended signal (TTL).
It is even "protocol independent" so it requires no software.

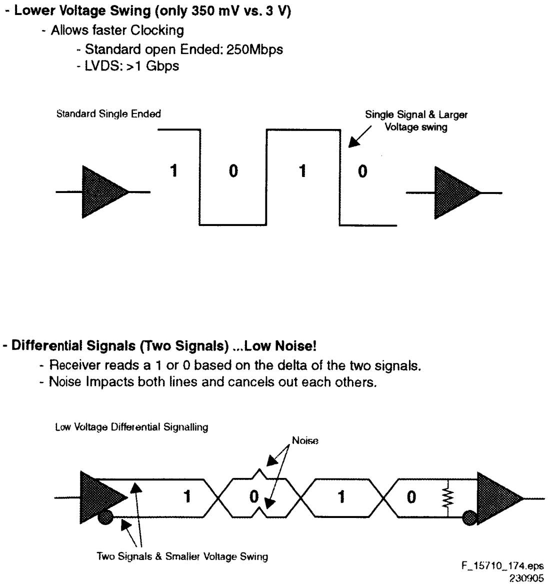

- Lower Voltage Swing (only 350 mV vs. 3 V)
- Allows faster Clocking
- Standard open Ended: 250Mbps
- LVDS: >1 Gbps
Standard Single Ended
Single Signal & Larger Voltage swing
1
0
1
0
- Differential Signals (Two Signals) ...Low Noise!
- Receiver reads a 1 or 0 based on the delta of the two signals.
- Noise Impacts both lines and cancels out each others.
Low Voltage Differential Signalling
Noise
1
0
1
0
Two Signals & Smaller Voltage Swing
F_15710_174.eps
230905

Figure 9-28 LVDS technology

The digital video output from the VIPER is connected to the display via the LVDS interface. This transmitter converts 28 bits of LVCMOS/LVTTL data into four LVDS (Low Voltage Differential Signalling) data streams. A phase-locked transmit clock is transmitted in parallel with the data streams over a fifth LVDS link. With every cycle of the transmit clock, 28 bits of input data are sampled and transmitted. At a transmit clock frequency of 85 MHz, 24 bits of RGB data and 3 bits of LCD timing and control data (FPLINE, FPFRAME, DRDY) are transmitted at a rate of 595 Mbps per LVDS data channel. Using a 85 MHz clock, the data throughput is 297.5 Mbytes/sec.

9.11 PNX2015: Stand-by Processor

9.11.1 Introduction

The Stand-by Processor's sub system is isolated from the other sub systems within thePNX2015. It has its own power supply (1.2V and 3.3V), together with separate clocking (16MHz) and reset. This allows for it to be active while all other sub systems are either inactive, via clock being disabled, or powered down.

The main tasks of the Stand-by Controller are:

- RC5/RC6 remote control handling.
- P50.
- Keyboard handling (side control, "on/off" switch).
- Detection and protection of the power supplies.
- Status detection on EXTernals.
- SAM/SDM entering.
- Provide boot-scripts to the VIPER.
- Start-up behaviour of the set; sequentially enabling the power supplies via the ENABLE lines.

9.11.2 TV Start-up Behaviour and Fault Detection

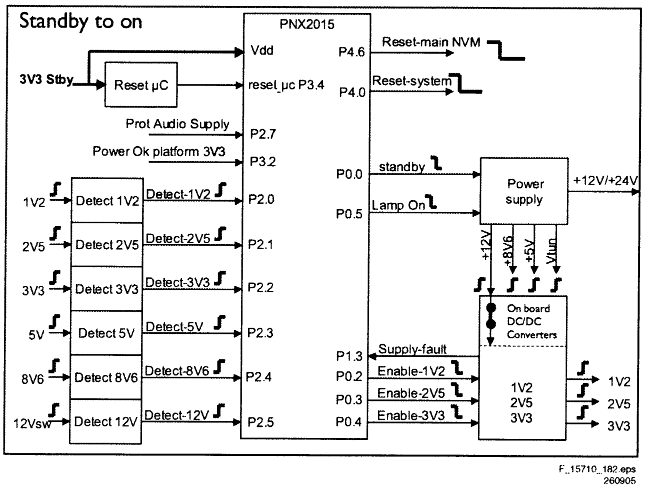
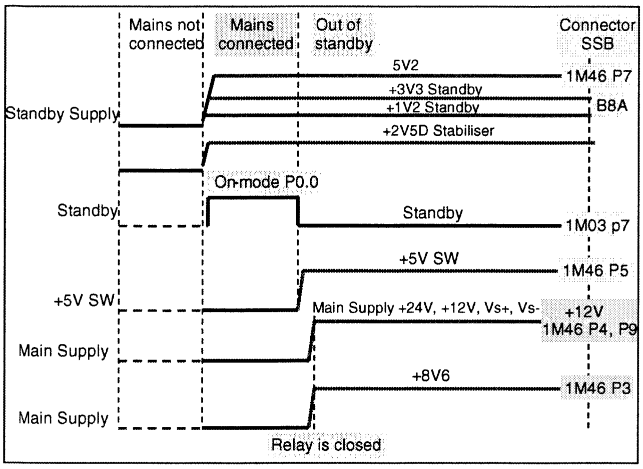

Standby to on
PNX2015
3V3 Stby
Reset µC
Vdd
reset_µc P3.4
P4.6
P4.0
Reset-main NVM
Reset-system
Prot Audio Supply
Power Ok platform 3V3
P2.7
P3.2
P0.0
P0.5
standby
Lamp On
Power supply
+12V/+24V
+12V
+8V6
+5V
Vtun
On board DC/DC Converters
1V2
2V5
3V3
5V
8V6
12Vsw
Detect 1V2
Detect 2V5
Detect 3V3
Detect 5V
Detect 8V6
Detect 12V
Detect-1V2
Detect-2V5
Detect-3V3
Detect-5V
Detect-8V6
Detect-12V
P2.0
P2.1
P2.2
P2.3
P2.4
P2.5
P1.3
P0.2
P0.3
P0.4
Supply-fault
Enable-1V2
Enable-2V5
Enable-3V3
1V2
2V5
3V3
F_15710_182.eps
260905

Figure 9-29 Start-up behaviour

1. The Stand-by Controller is powered by the +5V2 voltage (3V3_STBY voltage is derived from the +5V2), which becomes available when the set is connected to the Mains / AC Power.
2. By default, all I/O lines of the controller are "high", this state is also the state that will not trigger protections or cause supplies to rise, since enabling a supply requires that an IO line is pulled "low". Also all protections are active "low".
3. The 16 MHz crystal starts running.
4. Reset IC 7M03 will generate a RESET_STBY pulse.
5. All I/O lines will be set in default state, as "told" by the software.
   - RESET_SYSTEM will be "low" (this will hold the VIPER in reset).
   - LAMP_ON will be "low".
6. The system waits for an RC or functional switch command: when this command is "low" the set will start-up.



F_15710_185.eps
280905

Figure 9-30 Timing chart power supplies

The Stand-by Microprocessor is responsible for the start-up of the VIPER, by providing the correct timing for the DC/DC converted voltages (for timing of DC/DC converter voltages see description in paragraph "Power Supply").
The DC/DC converters (via ENABLE) are switched "on" (active "low"). Once these voltages are switched "on", the Stand-by Controller is monitoring these voltages via a voltage detector circuit connected to port P2.x. When one of the voltages is missing, the fault detection will be active "low" on port P2.x. An error code will be written in the error buffer.
There is a common SUPPLY_FAULT line; connected to port P1.3 (INT5) that is active "low" when there is a problem detected on one of the DC/DC power supplies driver circuits.
One input (P2.6) is used for the Audio Supply protection from the audio amplifier.
The RESET_SYSTEM line (P4.0) is "low" in Stand-by and at Start-up to keep the VIPER in reset state. Once the VIPER core supply is available, the RESET_SYSTEM line will become "high". The VIPER is starting up and will provide a RESET-MIPS active "high" to the Stand-by Processor P3.3, AVIP, and COLUMBUS.

9.11.3 Inputs/Outputs Stand-by Processor

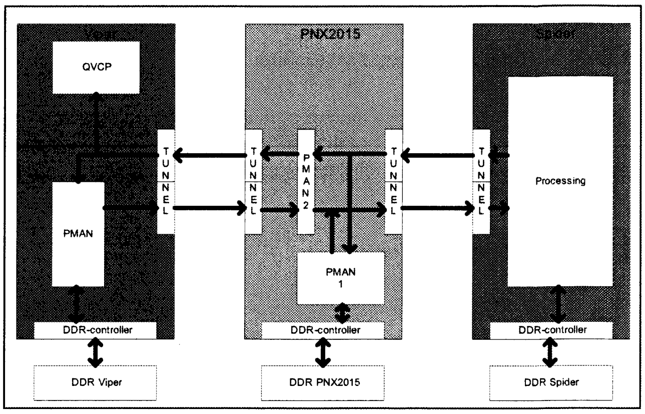
The inputs on the Stand-by Microprocessor are used to detect the AV status from the front inputs (see also the control block diagram in chapter 6 "Block diagrams,...").
An UART communication line via an electronic switch is available on a connector and will be used for Service to communicate with ComPair. The UART line is switched to the Stand-by Processor when the UART_SWITCH line (P0.7) is "high". Otherwise it is switched to the VIPER.

9.12 SPIDER (T6TE0TBG)

9.12.1 Introduction

The SPIDER is a video co-processor and responsible for:
- Temporal Noise reduction.
- De-interlacing for HD signals.
- Temporal upconversion for SD signals.
- Vertical and Horizontal scaling.
- Pixel plus 2 processing.

9.12.2 Block Diagram



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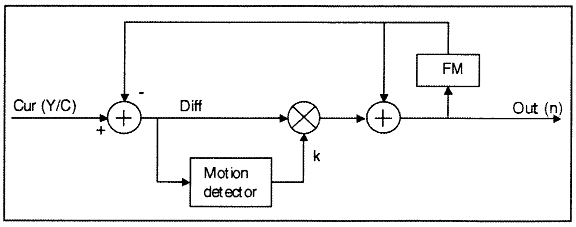
270905

Figure 9-31 Tunnel bus block diagram

The most important connections:
- Tunnel bus to/from PNX2015.
- DDR interface to/from SPIDER DDR.
- Reset signal SPIDER (from VIPER).
- Clock input SPIDER (33MHz) (from PCI clock VIPER).
- IRQ SPIDER connects to VIPER.
- I²C connection with VIPER.

9.12.3 Temporal Noise Reduction



F_15710_182.eps
270905

Figure 9-32 Temporal noise reduction

- For both luminance and colour difference signals.
- Motion compensated.

The previous field is subtracted from the current field, which will result in the difference between the two fields. With a static picture, the difference will be noise, with a dynamic picture it is not. That is why the delta is weighted by looking if there is movement or not. When there is a lot of movement, the output “k “ will be “1”, when there is little movement, “k” will be almost “0”. If no movement is detected, the difference signal will be noise, and the output is not affected. When a lot of movement is detected, the difference signal will be added to the former field, because it is no noise.

9.12.4 De-interlacing For HD Signals

This function is calculating the missing lines of the interlaced input signal. There are different options for de-interlacing:
- Line repetition.
- Field insertion.
- Median filtering.
- Motion compensated de-interlacing.

Note: For SD signals, de-interlacing is done in the VIPER.

9.12.5 Temporal Upconversion For SD Signals

Only necessary with film input, not for video.

9.12.6 Vertical And Horizontal Scaling

Necessary when we have progressive frames on the correct output rate, but still not the correct resolution. This requires spatial horizontal and vertical upscaling to the correct output resolution.

9.12.7 PixelPlus 2 Processing

The Pixel plus 2 core consists out of different modules and each of them help us to create a sharper image.

- Vertical LTI and horizontal LTI, CTI.
- Vertical and horizontal peaking.
- Skin tone depending peaking.
- Colour features.
- Peaking dependent colour saturation.

9.13 VIPER 2 (PNX 8550)

9.13.1 Introduction

The PNX8550 is a highly integrated media processor intended for deployment in analog, digital, and hybrid TV receivers. It can be used for 100 Hz interlaced as well as 60 Hz progressive screens. It is fully capable of performing advanced video improvement algorithms, such as Digital Natural Motion™, on Standard Definition analog or digital sources. It includes an HD capable de-interlacer for converting interlaced HD transmission signals to progressive output for driving wide-XGA class Plasma or LCD displays. Two 32-bit 240 MHz VLIW media processors, referred to as the TriMedia TM3260 CPU core, carry out the advanced video improvement processing as well as all audio operations. Fixed hardware functions perform stable core video functions, such as picture level MPEG2 decoding, scaling, image composition and pixel post processing.

The PNX8550 provides a primary digital (YUV or RGB) output to connect to the display specific output processor. In addition, a secondary analog video output (CVBS or S-Video) for a VCR is available. This is the so-called DENC-out. It can operate either in analog PAL/NTSC or digital mode.

9.13.2 Block Diagram

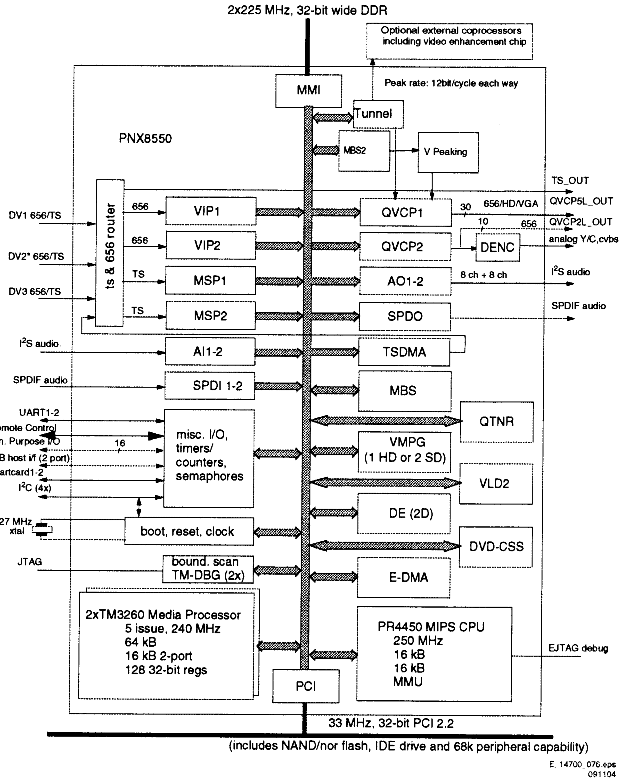

2x225 MHz, 32-bit wide DDR
Optional external coprocessors including video enhancement chip
MMI
Peak rate: 12bit/cycle each way
Tunnel
PNX8550
MBS2
V Peaking
TS_OUT
DV1 656/TS
DV2* 656/TS
DV3 656/TS
ts & 656 router
656
656
TS
TS
VIP1
VIP2
MSP1
MSP2
QVCP1
QVCP2
AO1-2
SPDO
30
656/HD/VGA
QVCP5L_OUT
10
656
QVCP2L_OUT
DENC
analog Y/C,cvbs
8 ch + 8 ch
I²S audio
SPDIF audio
I²S audio
AI1-2
TSDMA
SPDIF audio
SPDI 1-2
MBS
UART1-2
Remote Control
Gen. Purpose I/O
16
USB host i/f (2 port)
Smartcard1-2
I²C (4x)
misc. I/O, timers/ counters, semaphores
QTNR
VMPG (1 HD or 2 SD)
VLD2
DE (2D)
27 MHz xtal
boot, reset, clock
DVD-CSS
JTAG
bound. scan TM-DBG (2x)
E-DMA
2xTM3260 Media Processor 5 issue, 240 MHz 64 kB 16 kB 2-port 128 32-bit regs
PR4450 MIPS CPU 250 MHz 16 kB 16 kB MMU
EJTAG debug
PCI
33 MHz, 32-bit PCI 2.2
(includes NAND/nor flash, IDE drive and 68k peripheral capability)
E_14700_076.eps 091104

Figure 9-33 VIPER 2 internal block diagram

Control

An embedded MIPS32 processor (PR4450) running at 266 MHz is available to run the Operating System. The PR4450 processor is primarily responsible for running the demand paged graphics-intensive operating system, while the TM3260 media processors are responsible for running all real-time media functions. All hardware resources inside the PNX8550 are accessible by both the MIPS processor and the TM3260 CPUs. A "'sandbox" style system protection provision ensures that selected MIPS memory regions and critical peripherals cannot be corrupted or inspected.

VIP (Video Input Processor)

The Video Input Processors (VIP) handles incoming digital video and processes it for use by other components of the PNX8550. It provides the following functions:

- Receives 10-bit YUV4:2:2 digital video data from the selected DVx video port (input signal coming from the AVIP or Columbus IC output). The data is dithered down to in-memory 8-bit data format.
- Performs horizontal down scaling or up scaling by 2x (not available in HD video capture mode).
- Provides an internal Test Pattern Generator with NTSC, PAL, and variable format support.
- Acquire VBI data using a separate acquisition window from the video acquisition window.
- ANC header decoding or window mode for VBI data extraction.
- Interrupt generation for VBI or video written to memory input mode.
- Colour space conversion (mutual exclusive with horizontal scaling).
- Raw data mode captures of 8- or 10-bit data.

MBS (Memory Based Scaler)

The PNX8550 contains a Memory Based Scaler that performs operation on images in main memory. The MBS can either be controlled task by task by a TM3260, or it can be given a list of de-interlacing and scaling tasks. It reads images from memory, performs a transformation, and writes the result back in memory.

The MBS main features are:

- De-interlacing using either a median, 2-field majority select, or 3-field majority select algorithm with an edge detect/correct post-pass (these three provide increasing quality, at expense of increased bandwidth).
- Edge detect/correct on an input frame that has been software de-interlaced (this provides future capabilities in case we develop a better core de-interlacer than 3-field majority select).
- Horizontal and vertical scaling (on the input image, or on the result of edge detect/correct stage).
- Linear and non-linear aspect ratio conversion.
- Anti-flicker filtering.
- Conversions from any input pixel format to any non-indexed pixel format, including conversions between 4:2:0, 4:2:2 and 4:4:4, indexed to true colour conversion, colour expansion / compression, de-planarisation / planarisation (to convert between planar and packed pixel formats), programmable colour space conversion.

Supported video measurement functions during scaling or de-interlacing pass:

- Gather a histogram of luminance values (this data is used by software to control histogram modification).
- Measure noise level inside a rectangular window.
- Measure the lowest level luminance within a rectangular window (used to control black stretch in QVCP).
- Measure UV bandwidth inside a rectangular window.

QTNR (Quality Temporal Noise Reduction and Video Measurement)

The QTNR block has two primary functions: Temporal Noise Reduction: reading two video fields from memory, "current" (noisy) and "previous" (noise reduced) and producing a noise-reduced version of "current" in memory. While doing this, or as a separate "measurement only" pass, perform video measurements:

- Gather a histogram of luminance values (this data is used by software to control histogram modification).
- Measure noise level inside a rectangular window.
- Measure the lowest level luminance within a rectangular window (used to control black stretch in QVCP).
- Measure UV bandwidth inside a rectangular window.
- Measure the position of top and bottom black bars in the image.

QVCP (Quality Video Composition Processor)

The PNX8550 contains two QVCPs, which are responsible for combining and displaying video and graphics images from main memory. The primary QVCP serves as the main display pipeline, the second one is targeted to be connected to a record device (VCR). The primary QVCP allows composition of up to five layers, and can output in ITU-656/HD/VGA format in 10 bits per component up to 81 Mpix/s.

The secondary QVCP allows composition of up to two layers, can output in 656 10-bit component mode up to 81 MHz (40.5 Mpix/s). The secondary QVCP is connected to an on-chip Digital Video Encoder (DENC), allowing direct analog CVBS or S-video output.
In analog output mode, standard definition interlaced NTSC or PAL is supported (SCART2-out signal, for VCR-recording). The encoder has two DACs. DAC1 provides CVBS or luminance for S-video. DAC2 provides chrominance for S-video.
Internal sensors allow software to test loading on the S-video Chrominance line to decide whether to output luminance or CVBS on DAC1.

The primary and secondary QVCP each contain a series of layers and mixers. The QVCP creates a series of display data layers (pixel streams) and mixes them logically from back to front to create the composite output picture.

Some of the features the QVCP provides are:

- Video Quality Enhancement.
- Luminance Transient Improvement.
- Colour Dependent Sharpening.
- Horizontal Dynamic Peaking.
- Histogram Modification.
- Digital Colour Transient Improvement.
- Black Stretch.
- Skin Tone Correction.
- Blue Stretch and Green Enhancement.
- Video and Graphics horizontal up scaling.
- Colour space unification of all the display surfaces.
- Contrast and Brightness Control.
- Screen timing generation adopted to the connected display requirements (SD-TV standards, HD-TV standards, progressive, interlaced formats).

9.14 MOP

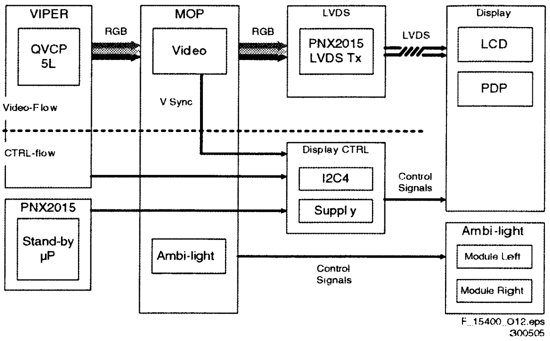


Figure 9-34 Block diagram of video output with MOP

In this chassis an EPLD (or MOP) is used for AmbiLight processing and for some picture enhancements, like blue and green stretch.

9.15 Ambient Light (if present)

9.15.1 Introduction

At the rear left and right side of the TV-set, three gas discharging lamps are mounted. With the red, green, and blue lamps, each colour can be made.

- Ambient light is adjustable with three variables: Hue, Saturation, and Brightness.
- Hue and saturation are controlled via menu control or via smart settings.
- The brightness is controlled via menu or via a cycle generator.
- The light sensor influences the brightness.
- Switching "on" or "off" goes via a ramp up or down.
- The ambient light may be active or passive.

In the user set up menu the following items are added:

- Ambient Light.
- Lights "On/Off".
- Ambient Light: "Personal/Normal/Warm/Cool".

Two extra keys are added on the Remote Control:

- ON/OFF: A (normal) press on this key switches the Ambient Light "On/Off".
- MODE: In case the set is "On", to toggle the smart modes.

Specifications:

- Lamp current frequency= 43 kHz.
- Lamp dimming frequency= 85 Hz.
- PWM duty cycle range= 30%
- Each lamp is only driven one third of the period to avoid crosstalk (drive lamps at 33.3% to have no losses in output).

This chassis features (software driven) stereo Ambilight.

9.15.2 Block Diagram

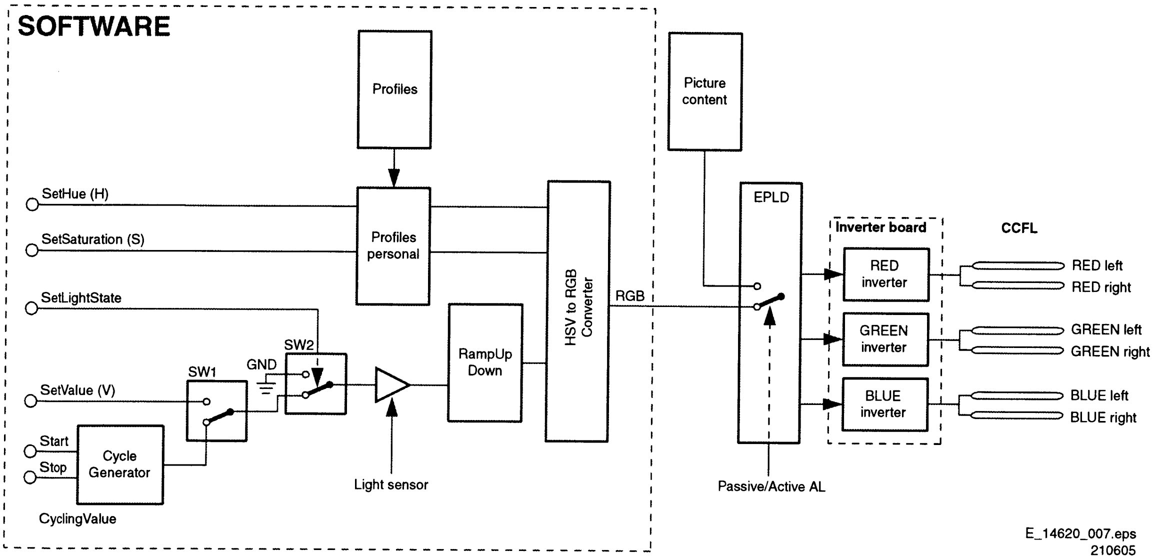

SOFTWARE
Profiles
Picture content
SetHue (H)
SetSaturation (S)
Profiles personal
SetLightState
HSV to RGB Converter
RGB
EPLD
Inverter board
CCFL
RED inverter
RED left
RED right
GREEN inverter
GREEN left
GREEN right
BLUE inverter
BLUE left
BLUE right
SW2
SW1
GND
RampUp Down
SetValue (V)
Start
Stop
Cycle Generator
CyclingValue
Light sensor
Passive/Active AL
E_14620_007.eps
210605

Figure 9-35 Ambient light block diagram

All mentioned blocks (from "Cycle Generator" to "HSV-to-RGB Converter" are implemented in the main software. Via I^2C, the RGB values are sent to the MOP (where a selection is made between "active" and "passive" mode) and again via I^2C the Inverter board is addressed.
In "passive" mode, the RGB values from the "HSV-to-RGB Converter" are used, while in "active" mode the picture content is used to steer the ambient lights.

Cycle Generator
The Cycle Generator (for fade in/out) starts with a long press on the "On/Off" button on the RC. It stops when the button is released.

Light Sensor
The light sensor influences the Brightness: when the room is darker, the ambient light is reduced. The amount of dimming is set according to an algorithm in the Auto TV software. In "active" Ambient Light mode, the light sensor does not influence the Brightness.

Ramp Up/Down
The brightness is changing with a speed from min. to max. in 2 s.

HSV to RGB Converter.
The HSV (Hue, Saturation, Value) values are converted to RGB values.

Outputs
The outputs are RGB values and can individually be decreased.

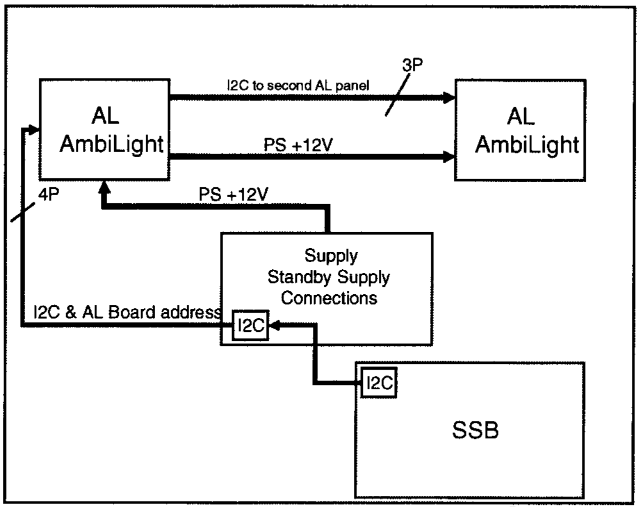
MOP (EPLD)
In "passive" mode, the EPLD sends the info from the OTC directly to the inverter board. In "active" mode, the EPLD calculates the RGB values. Hue and Saturation are not adjustable, Brightness is adjustable.

9.15.3 Inverter Board

General
Some specifications:

- There are three inverters to drive the lamps, each inverter drives the Left and Right lamp for one colour.
- DC-to-AC converter: 2.3 kV.
- Able to drive Cold Cathode Fluorescent Lamps (CCFL). There are two lamp units, three lamps (RGB) per unit= six lamps.
- The lamps are driven with Pulse Width Modulation (PWM).
- The inverters and lamps are supplied with 12V from main supply.

Addressing the two boards



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230905

Figure 9-36 Ambilight board addressing

The Left and Right Ambi Light boards are the same on hardware level, but the boards are able to work on different I^2C addresses: 6Ah for the left board and 6Ch for the right board. The pre-programmed address depends on the value of the RXD pin (H or L).
The first AL board is connected to the SSB by a four -wire cable: I^2C, ground, and one extra wire. The extra wire of this cable is connected to ground on the SSB, in this way the first board will be selected.
From the first board to the second board a three-wire cable is used: I^2C and ground. The extra connection doesn't exist on the second board, so the board will be identified as “AL 2”.
Pin 4 of connector 1M49 is connected to RXD line of the microprocessor. This connection is connected to ground on the SSB. The AL board, is programmed in such a way that it can change his address, depending of the value at the RXD input pin at start-up.

9.16 Abbreviation List

0/6/12	SCART switch control signal on A/V board. 0 = loop through (AUX to TV), 6 = play 16:9 format, 12 = play 4:3 format
2DNR	Spatial (2D) Noise Reduction
3DNR	Temporal (3D) Noise Reduction
AARA	Automatic Aspect Ratio Adaptation: algorithm that adapts aspect ratio to remove horizontal black bars; keeps the original aspect ratio
ACI	Automatic Channel Installation: algorithm that installs TV channels directly from a cable network by means of a predefined TXT page
ADC	Analogue to Digital Converter
AFC	Automatic Frequency Control: control signal used to tune to the correct frequency
AGC	Automatic Gain Control: algorithm that controls the video input of the feature box
AM	Amplitude Modulation
ANR	Automatic Noise Reduction: one of the algorithms of Auto TV
AP	Asia Pacific
AR	Aspect Ratio: 4 by 3 or 16 by 9
ASF	Auto Screen Fit: algorithm that adapts aspect ratio to remove horizontal black bars without discarding video information
ATSC	Advanced Television Systems Committee, the digital TV standard in the USA
ATV	See Auto TV
Auto TV	A hardware and software control system that measures picture content, and adapts image parameters in a dynamic way
AV	External Audio Video
AVIP	Audio Video Input Processor
B/G	Monochrome TV system. Sound carrier distance is 5.5 MHz
BTSC	Broadcast Television Standard Committee. Multiplex FM stereo sound system, originating from the USA and used e.g. in LATAM and AP-NTSC countries
B-TXT	Blue TeleteXT
C	Centre channel (audio)
CEC	Consumer Electronics Control bus: remote control bus on HDMI connections
CL	Constant Level: audio output to connect with an external amplifier
COLUMBUS	COlour LUMinance Baseband Universal Sub-system
ComPair	Computer aided rePair
CP	Connected Planet / Copy Protection
CSM	Customer Service Mode
CTI	Colour Transient Improvement: manipulates steepness of chroma transients
CVBS	Composite Video Blanking and Synchronization
DAC	Digital to Analogue Converter
DBE	Dynamic Bass Enhancement: extra low frequency amplification
DDC	See "E-DDC"
D/K	Monochrome TV system. Sound carrier distance is 6.5 MHz
DFU	Directions For Use: owner's manual
DMR	Digital Media Reader: card reader

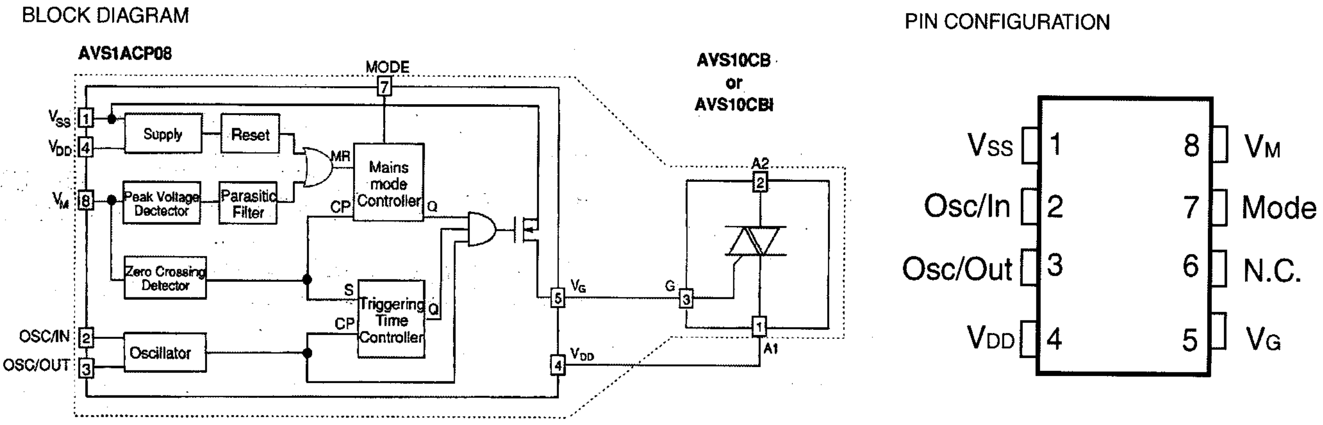
DNR	Digital Noise Reduction: noise reduction feature of the set
DRAM	Dynamic RAM
DRM	Digital Rights Management
DSP	Digital Signal Processing
DST	Dealer Service Tool: special remote control designed for service technicians
DTCP	Digital Transmission Content Protection; A protocol for protecting digital audio/video content that is traversing a high speed serial bus, such as IEEE-1394
DVD	Digital Versatile Disc
DVI(-d)	Digital Visual Interface (d= digital only)
E-DDC	Enhanced Display Data Channel (VESA standard for communication channel and display). Using E-DDC, the video source can read the EDID information form the display.
EDID	Extended Display Identification Data (VESA standard)
EEPROM	Electrically Erasable and Programmable Read Only Memory
EMI	Electro Magnetic Interference
EPLD	Erasable Programmable Logic Device
EU	Europe
EXT	EXTernal (source), entering the set by SCART or by cinches (jacks)
FBL	Fast BLanking: DC signal accompanying RGB signals
FDS	Full Dual Screen (same as FDW)
FDW	Full Dual Window (same as FDS)
FLASH	FLASH memory
FM	Field Memory or Frequency Modulation
FTV	Flat TeleVision
Gb/s	Giga bits per second
G-TXT	Green TeleteXT
H	H_sync to the module
HD	High Definition
HDD	Hard Disk Drive
HDCP	High-bandwidth Digital Content Protection: A "key" encoded into the HDMI/DVI signal that prevents video data piracy. If a source is HDCP coded and connected via HDMI/DVI without the proper HDCP decoding, the picture is put into a "snow vision" mode or changed to a low resolution. For normal content distribution the source and the display device must be enabled for HDCP "software key" decoding.
HDMI	High Definition Multimedia Interface
HP	HeadPhone
I	Monochrome TV system. Sound carrier distance is 6.0 MHz
I^2C	Inter IC bus
I^2D	Inter IC Data bus
I^2S	Inter IC Sound bus
IF	Intermediate Frequency
Interlaced	Scan mode where two fields are used to form one frame. Each field contains half the number of the total amount of lines. The fields are written in "pairs", causing line flicker.
IR	Infra Red
IRQ	Interrupt Request
ITU-656	The ITU Radio communication Sector (ITU-R) is a standards body subcommittee of the International Telecommunication Union relating to radio communication. ITU-656 (a.k.a. SDI), is a digitized video format used for broadcast grade video. Uncompressed digital component or digital composite signals can be used. The SDI signal is self-synchronizing, uses 8 bit or 10 bit data words, and has a maximum data rate of 270 Mbit/s, with a minimum bandwidth of 135 MHz.
ITV	Institutional TeleVision; TV sets for hotels, hospitals etc.
JOP	Jaguar Output Processor
LS	Last Status; The settings last chosen by the customer and read and stored in RAM or in the NVM. They are called at start-up of the set to configure it according to the customer's preferences
LATAM	Latin America
LCD	Liquid Crystal Display
LED	Light Emitting Diode
L/L'	Monochrome TV system. Sound carrier distance is 6.5 MHz. L' is Band I, L is all bands except for Band I
LORE	LOcal REgression approximation noise reduction
LPL	LG.Philips LCD (supplier)
LS	Loudspeaker
LVDS	Low Voltage Differential Signalling
Mbps	Mega bits per second
M/N	Monochrome TV system. Sound carrier distance is 4.5 MHz
MIPS	Microprocessor without Interlocked Pipeline-Stages; A RISC-based microprocessor
MOP	Matrix Output Processor
MOSFET	Metal Oxide Silicon Field Effect Transistor, switching device
MPEG	Motion Pictures Experts Group
MPIF	Multi Platform InterFace
MUTE	MUTE Line
NC	Not Connected
NICAM	Near Instantaneous Compounded Audio Multiplexing. This is a digital sound system, mainly used in Europe.
NTC	Negative Temperature Coefficient, non-linear resistor
NTSC	National Television Standard Committee. Colour system mainly used in North America and Japan. Colour carrier NTSC M/N= 3.579545 MHz, NTSC 4.43= 4.433619 MHz (this is a VCR norm, it is not transmitted off-air)
NVM	Non-Volatile Memory: IC containing TV related data such as alignments
O/C	Open Circuit
OSD	On Screen Display
OTC	On screen display Teletext and Control; also called Artistic (SAA5800)
P50	Project 50: communication protocol between TV and peripherals
PAL	Phase Alternating Line. Colour system mainly used in West Europe (colour carrier= 4.433619 MHz) and South America (colour carrier PAL M= 3.575612 MHz and PAL N= 3.582056 MHz)
PCB	Printed Circuit Board (same as "PWB")
PCM	Pulse Code Modulation
PDP	Plasma Display Panel
PFC	Power Factor Corrector (or Pre-conditioner)
PIP	Picture In Picture

PLL	Phase Locked Loop. Used for e.g. FST tuning systems. The customer can give directly the desired frequency
POR	Power On Reset, signal to reset the uP
Progressive Scan	Scan mode where all scan lines are displayed in one frame at the same time, creating a double vertical resolution.
PTC	Positive Temperature Coefficient, non-linear resistor
PWB	Printed Wiring Board (same as "PCB")
PWM	Pulse Width Modulation
QTNR	Quality Temporal Noise Reduction
QVCP	Quality Video Composition Processor
RAM	Random Access Memory
RGB	Red, Green, and Blue. The primary colour signals for TV. By mixing levels of R, G, and B, all colours (Y/C) are reproduced.
RC	Remote Control
RC5 / RC6	Signal protocol from the remote control receiver
RESET	RESET signal
ROM	Read Only Memory
R-TXT	Red TeleteXT
SAM	Service Alignment Mode
S/C	Short Circuit
SCART	Syndicat des Constructeurs d'Appareils Radiorecepteurs et Televisieurs
SCL	Serial Clock I^2C
SCL-F	CLock Signal on Fast I^2C bus
SD	Standard Definition
SDA	Serial Data I^2C
SDA-F	DAta Signal on Fast I^2C bus
SDI	Serial Digital Interface, see "ITU-656"
SDRAM	Synchronous DRAM
SECAM	SEequence Couleur Avec Memoire. Colour system mainly used in France and East Europe. Colour carriers= 4.406250 MHz and 4.250000 MHz
SIF	Sound Intermediate Frequency
SMPS	Switched Mode Power Supply
SOG	Sync On Green
SOPS	Self Oscillating Power Supply
S/PDIF	Sony Philips Digital InterFace
SRAM	Static RAM
SSB	Small Signal Board
STBY	STand-BY
SVGA	800x600 (4:3)
SVHS	Super Video Home System
SW	Software
SWAN	Spatial temporal Weighted Averaging Noise reduction
SXGA	1280x1024
TFT	Thin Film Transistor
THD	Total Harmonic Distortion
TMDS	Transmission Minimized Differential Signalling
TXT	TeleteXT
TXT-DW	Dual Window with TeleteXT
uP	Microprocessor
UXGA	1600x1200 (4:3)
V	V-sync to the module
VCR	Video Cassette Recorder
VESA	Video Electronics Standards Association
VGA	640x480 (4:3)
VL	Variable Level out: processed audio output toward external amplifier
VSB	Vestigial Side Band; modulation method
WYSIWYR	What You See Is What You Record: record selection that follows main picture and sound
WXGA	1280x768 (15:9)
XTAL	Quartz crystal
XGA	1024x768 (4:3)
Y	Luminance signal
Y/C	Luminance (Y) and Chrominance (C) signal
YPbPr	Component video. Luminance and scaled colour difference signals (B-Y and R-Y)
YUV	Component video

9.17 IC Data Sheets

This section shows the internal block diagrams and pin configurations of ICs that are drawn as "black boxes" in the electrical diagrams (with the exception of "memory" and "logic" ICs).

9.17.1 Diagram A1, AVS1ACP08 (IC 7805)


BLOCK DIAGRAM
AVS1ACP08
MODE
7
V_{SS} 1
V_{DD} 4
V_M 8
OSC/IN 2
OSC/OUT 3
Supply
Reset
MR
Mains mode Controller
Peak Voltage Dectector
Parasitic Filter
CP
Q
Zero Crossing Detector
S
Triggering Time Controller
CP
Q
Oscillator
5 V_G
4 V_{DD}
AVS10CB or AVS10CBI
A2
2
G
3
1
A1
PIN CONFIGURATION
Vss 1
Osc/In 2
Osc/Out 3
VDD 4
8 VM
7 Mode
6 N.C.
5 VG

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230905

Figure 9-37 Internal block diagram and pin configuration

9.17.2 Diagram A2, MC34067P (IC 7001)

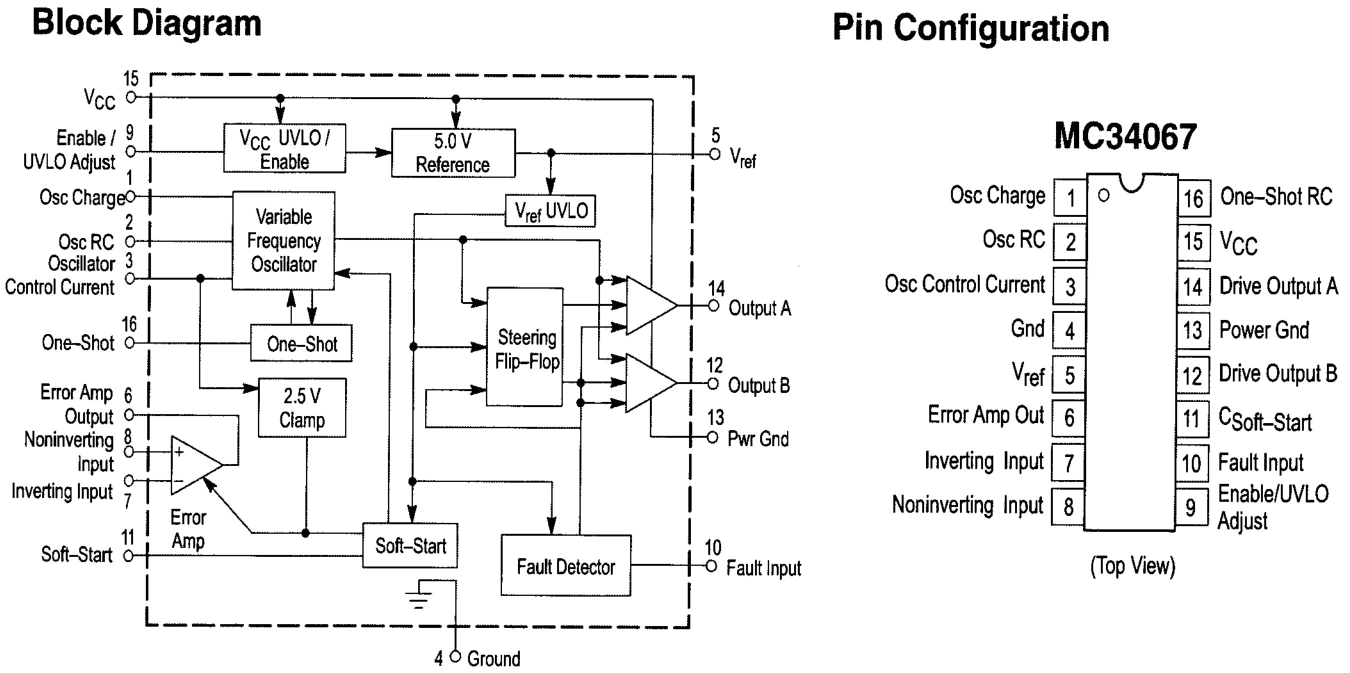
Block Diagram
15 V_{CC}
Enable / UVLO Adjust 9
1 Osc Charge
2 Osc RC
Oscillator Control Current 3
16 One-Shot
Error Amp Output 6
Noninverting Input 8
Inverting Input 7
11 Soft-Start
V_{CC} UVLO / Enable
5.0 V Reference
V_{ref} UVLO
Variable Frequency Oscillator
One-Shot
2.5 V Clamp
Steering Flip-Flop
Error Amp
Soft-Start
Fault Detector
5 V_{ref}
14 Output A
12 Output B
13 Pwr Gnd
10 Fault Input
4 Ground
Pin Configuration
MC34067
Osc Charge 1
Osc RC 2
Osc Control Current 3
Gnd 4
V_{ref} 5
Error Amp Out 6
Inverting Input 7
Noninverting Input 8
16 One-Shot RC
15 V_{CC}
14 Drive Output A
13 Power Gnd
12 Drive Output B
11 $C_{Soft-Start}$
10 Fault Input
9 Enable/UVLO Adjust
(Top View)

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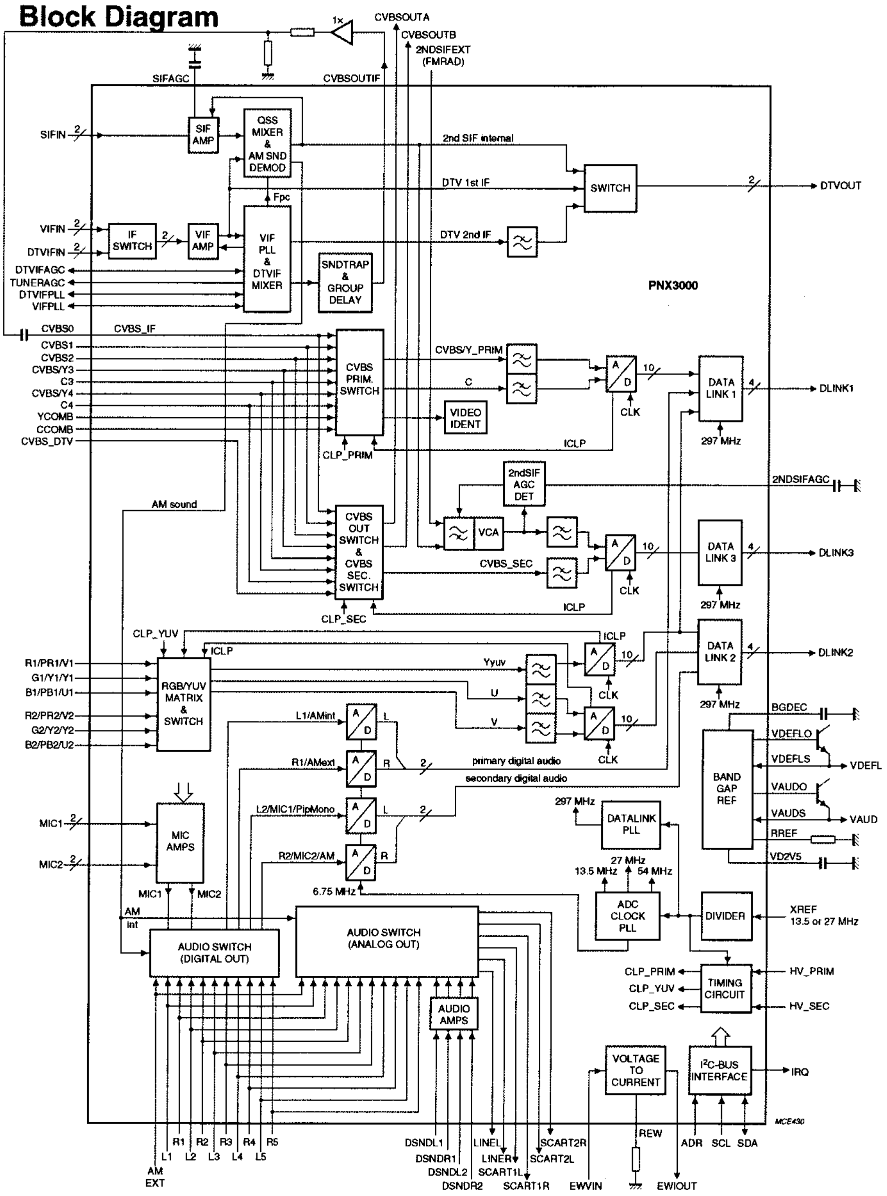
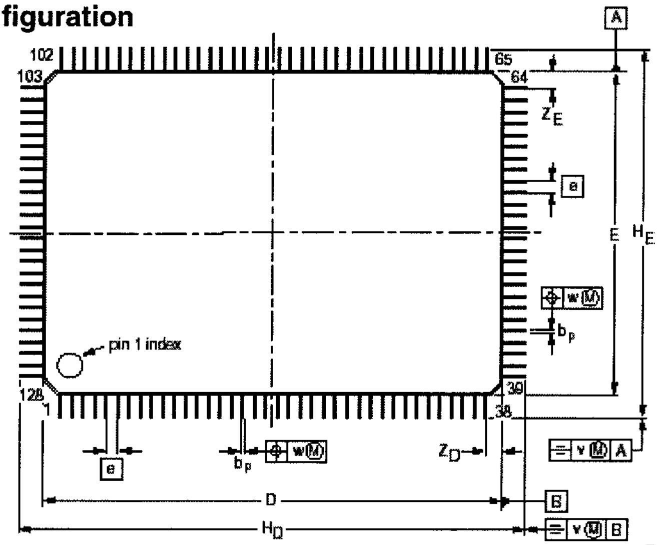
Figure 9-38 Internal block diagram and pin configuration

9.17.3 Diagram B4x, PNX3000HL (IC 7C00)

Block Diagram


CVBSOUTA
CVBSOUTB
2NDSIFEXT (FMRAD)
1x
SIFAGC
CVBSOUTIF
SIFIN
SIF AMP
QSS MIXER & AM SND DEMOD
2nd SIF internal
SWITCH
DTVOUT
DTV 1st IF
Fpc
VIFIN
DTVIFIN
IF SWITCH
VIF AMP
VIF PLL & DTVIF MIXER
DTV 2nd IF
DTVIFAGC
TUNERAGC
DTVIFPLL
VIFPLL
SNDTRAP & GROUP DELAY
PNX3000
CVBS0
CVBS_IF
CVBS1
CVBS2
CVBS/Y3
C3
CVBS/Y4
C4
YCOMB
CCOMB
CVBS_DTV
CVBS PRIM. SWITCH
CVBS/Y_PRIM
C
VIDEO IDENT
A D
CLK
DATA LINK 1
DLINK1
297 MHz
ICLP
CLP_PRIM
2ndSIF AGC DET
2NDSIFAGC
AM sound
CVBS OUT SWITCH & CVBS SEC. SWITCH
VCA
CVBS_SEC
DATA LINK 3
DLINK3
CLP_SEC
CLP_YUV
ICLP
DATA LINK 2
DLINK2
R1/PR1/V1
G1/Y1/Y1
B1/PB1/U1
R2/PR2/V2
G2/Y2/Y2
B2/PB2/U2
RGB/YUV MATRIX & SWITCH
Yyuv
U
V
BGDEC
VDEFLO
VDEFLS
VDEFL
VAUDO
VAUDS
VAUD
RREF
VD2V5
BAND GAP REF
L1/AMint
R1/AMext
L2/MIC1/PipMono
R2/MIC2/AM
L
R
primary digital audio
secondary digital audio
297 MHz
DATALINK PLL
27 MHz
13.5 MHz
54 MHz
ADC CLOCK PLL
6.75 MHz
DIVIDER
XREF 13.5 or 27 MHz
MIC1
MIC2
MIC AMPS
AM int
AUDIO SWITCH (DIGITAL OUT)
AUDIO SWITCH (ANALOG OUT)
AUDIO AMPS
CLP_PRIM
CLP_YUV
CLP_SEC
TIMING CIRCUIT
HV_PRIM
HV_SEC
VOLTAGE TO CURRENT
I²C-BUS INTERFACE
IRQ
MCE430
AM EXT
R1 R2 R3 R4 R5
L1 L2 L3 L4 L5
DSNDL1
DSNDR1
DSNDL2
DSNDR2
LINEL
LINER
SCART1L
SCART1R
SCART2R
SCART2L
EWVIN
REW
EWIOUT
ADR SCL SDA

Pin Configuration


A
102
103
65
64
Z_E
e
E
H_E
w M
b_p
pin 1 index
128
1
39
38
e
b_p
w M
Z_D
v M A
D
B
H_D
v M B

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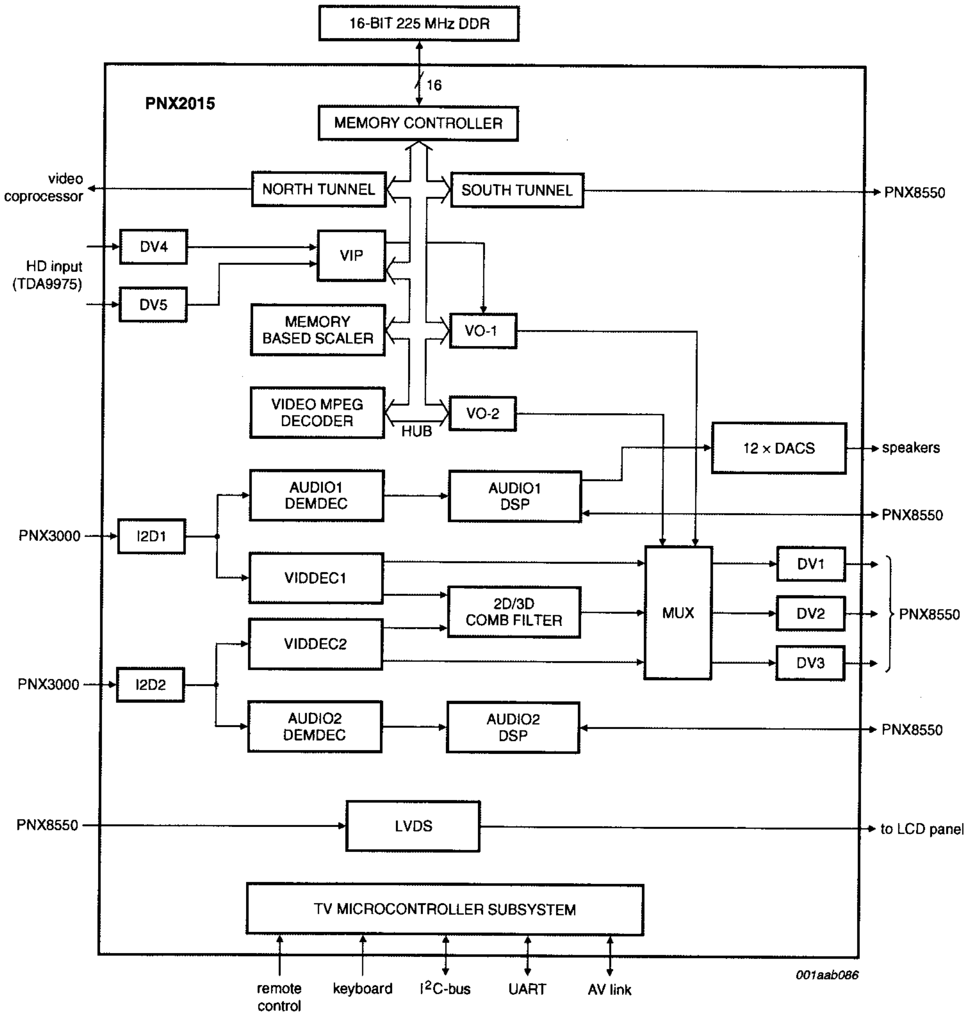
240505

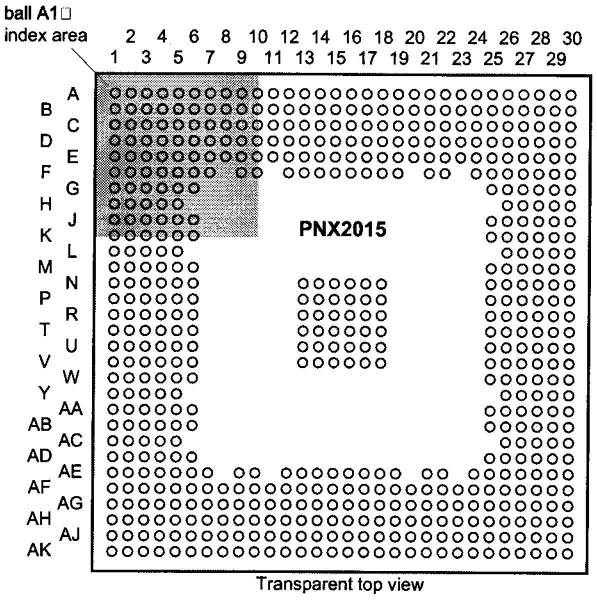
Figure 9-39 Internal block diagram and pin configuration

9.17.4 Diagram B4x, PNX2015E (IC 7J00)

Block Diagram


16-BIT 225 MHz DDR
16
PNX2015
MEMORY CONTROLLER
video coprocessor
NORTH TUNNEL
SOUTH TUNNEL
PNX8550
DV4
VIP
HD input (TDA9975)
DV5
MEMORY BASED SCALER
VO-1
VIDEO MPEG DECODER
HUB
VO-2
12 x DACS
speakers
AUDIO1 DEMDEC
AUDIO1 DSP
PNX8550
PNX3000
I2D1
VIDDEC1
DV1
2D/3D COMB FILTER
MUX
DV2
PNX8550
VIDDEC2
DV3
PNX3000
I2D2
AUDIO2 DEMDEC
AUDIO2 DSP
PNX8550
PNX8550
LVDS
to LCD panel
TV MICROCONTROLLER SUBSYSTEM
remote control
keyboard
I²C-bus
UART
AV link
001aab086

Pin Configuration


ball A1 index area
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29
A
B
C
D
E
F
G
H
J
K
L
M
N
P
R
T
U
V
W
Y
AA
AB
AC
AD
AE
AF
AG
AH
AJ
AK
PNX2015
Transparent top view

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240505

Figure 9-40 Internal block diagram and pin configuration

9.17.5 Diagram B6x, T6TE0TBG SPIDER (IC 7R00)

Pin Configuration

	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	T	U	V	W	Y	AA	AB	AC
23	A23 RESET SMTTIF	B23 TST1 TLCHTHIF	C23 TST2 TLCHTHIF	D23 TCK SMTTIF	E23 SDA WBDIICODIF	F23 TRST TLCHTHIF	G23 TDO BT16RIF	H23 INT BT4RIF	J23 DDR_A3 Z7BSSTHC1	K23 DDR_A2 Z7BSSTHC1	L23 DDR_A1 Z7BSSTHC1	M23 DDR_A0 Z7BSSTHC1	N23 DDR_A11 Z7BSSTHC1	P23 DDR_A8 Z7BSSTHC1	R23 DDR_BA0 Z7BSSTHC1	T23 DDR_RASN Z7BSSTHC1	U23 DDR_CASN Z7BDSSTHC1	V23 DDR_CKE Z7BSSTHC1	W23 DDR_CKI Z7ISSTFC1	Y23 DDR_LDQS Z7BDSSTHC1	AA23 DDR_CKN Z7BSSTHC1		AC23 DDR_DQ1 Z7BDSSTHC1
22		B22 TST_OUT9 BT4RIF	C22 TST0 TLCHTHIF	D22 TST3 TLCHTHIF	E22 SCL WBDIICODIF	F22 TMS TLCHTHIF	G22 TDI TLCHTHIF			K22 DDR_A4 Z7BSSTHC1	L22 DDR_A5 Z7BSSTHC1	M22 DDR_A6 Z7BSSTHC1	N22 DDR_A7 Z7BSSTHC1	P22 DDR_A10 Z7BSSTHC1	R22 DDR_BA1 Z7BSSTHC1	T22 DDR_A9 Z7BSSTHC1		V22 DDR_WEN Z7BDSSTHC1		Y22 DDR_UDQS Z7BDSSTHC1	AA22 DDR_CK Z7BDSSTHC1	AB22 DDR_DQ0 Z7BDSSTHC1	AC22 DDR_DQ3 Z7BDSSTHC1
21	A21 TST_OUT6 BT4RIF	B21 TST_OUT7 BT4RIF	C21 TST_OUT8 BT4RIF																			AB21 DDR_DQ2 Z7BDSSTHC1	
20	A20 TST_OUT4 BT4RIF	B20 TST_OUT5 BT4RIF																V20 DDR_VREF3 Z7VRSSTC1				AB20 DDR_DQ4 Z7BDSSTHC1	AC20 DDR_DQ5 Z7BDSSTHC1
19	A19 TST_OUT2 BT4RIF	B19 TST_OUT3 BT4RIF																			AA19 DDR_VREF2 Z7VRSSTC1	AB19 DDR_DQ6 Z7BDSSTHC1	
18	A18 TST_OUT0 BT4RIF	B18 TST_OUT1 BT4RIF																				AB18 DDR_DQ7 Z7BDSSTHC1	AC18 DDR_DQ8 Z7BDSSTHC1
17	A17 TST_IN8 TLCHTHIF	B17 TST_IN9 TLCHTHIF																				AB17 DDR_DQ9 Z7BDSSTHC1	AC17 DDR_DQ10 Z7BDSSTHC1
16	A16 TST_IN7 TLCHTHIF																						
15	A15 TST_IN6 TLCHTHIF	B15 TST_IN5 TLCHTHIF																			AA15 DDR_VREF1 Z7VRSSTC1	AB15 DDR_DQ11 Z7BDSSTHC1	AC15 DDR_DQ12 Z7BDSSTHC1
14	A14 TST_IN4 TLCHTHIF	B14 TST_IN3 TLCHTHIF																				AB14 DDR_DQ13 Z7BDSSTHC1	AC14 DDR_DQ14 Z7BDSSTHC1
13	A13 TST_IN2 TLCHTHIF	B13 TST_IN1 TLCHTHIF																					AC13 DDR_DQ15 Z7BDSSTHC1
12	A12 TST_IN0 TLCHTHIF	B12 TUN_RX_DATA10 Z7ISSTFC1									**T6TE0TB6**												
11		B11 TUN_RX_DATA8 Z7ISSTFC1																				AB11 TST_IN10 TLCHTHIF	AC11 TST_IN11 TLCHTHIF
10	A10 TUN_RX_DATA15 Z7ISSTFC1	B10 TUN_RX_BUSY Z7BTSSTHC1																				AB10 TST_IN12 TLCHTHIF	AC10 TST_IN13 TLCHTHIF
9	A9 TUN_RX_DATA14 Z7ISSTFC1	B9 TUN_RX_DATA13 Z7ISSTFC1	C9 TUN_RX_VREF1 Z7VRSSTC1																			AB9 TST_IN14 TLCHTHIF	AC9 TST_IN15 TLCHTHIF
8		B8 TUN_RX_DATA12 Z7ISSTFC1																				AB8 BISTEN TLCHTHIF	AC8 DIODE_IN ZETMDL
7	A7 TUN_RX_CKAN Z7ISSTFC1	B7 TUN_RX_DATA11 Z7ISSTFC1																				AB7 TST_CLK0 TLCHTHIF	AC7 DIODE_OUT ZETMDR
6	A6 TUN_RX_CKAP Z7ISSTFC1	B6 TUN_RX_DATA3 Z7ISSTFC1		D6 TUN_RX_VREF2 Z7VRSSTC1																		AB6 TST_CLK1 TLCHTHIF	
5	A5 TUN_RX_DATA7 Z7ISSTFC1	B5 TUN_RX_DATA6 Z7ISSTFC1																					AC5 TST_CLK2 TLCHTHIF
4	A4 TUN_RX_DATA5 Z7ISSTFC1																					AB4 SCLOUTP_PLL ZEBDRV	AC4 SCLOUTN_PLL ZEBDRV
3	A3 TUN_RX_DATA4 Z7ISSTFC1	B3 TUN_RX_DATA9 Z7ISSTFC1										M3 TUN_TX_VREF1 Z7VRSSTC1									AA3 TST_IN16 TLCHTHIF		
2	A2 TUN_RX_DATA0 Z7ISSTFC1	B2 TUN_RX_DATA1 Z7ISSTFC1	C2 TUN_TX_DATA14 Z7BTSSTHC1	D2 TUN_TX_DATA8 Z7BTSSTHC1		F2 TUN_TX_DATA5 Z7BTSSTHC1	G2 TUN_TX_CKAP Z7BTSSTHC1		J2 TUN_TX_DATA7 Z7BTSSTHC1	K2 TUN_TX_DATA0 Z7BTSSTHC1			N2 TUN_TX_DATA4 Z7BTSSTHC1	P2 TST_PD TLCHTHIF	R2 TST_OUT18 BT4RIF	T2 TST_OUT16 BT4RIF	U2 TST_OUT14 BT4RIF	V2 TST_OUT12 BT4RIF	W2 TST_OUT10 BT4RIF	Y2 CLK TLCHTHIF	AA2 TST_IN19 TLCHTHIF	AB2 TST_IN17 TLCHTHIF	
1	A1 TUN_RX_DATA2 Z7ISSTFC1	B1 TUN_TX_DATA12 Z7BTSSTHC1	C1 TUN_TX_DATA15 Z7BTSSTHC1	D1 TUN_TX_DATA13 Z7BTSSTHC1	E1 TUN_TX_DATA10 Z7BTSSTHC1	F1 TUN_TX_DATA9 Z7BTSSTHC1	G1 TUN_TX_DATA11 Z7BTSSTHC1	H1 TUN_TX_CKAN Z7BTSSTHC1	J1 TUN_TX_DATA3 Z7BTSSTHC1	K1 TUN_TX_DATA6 Z7BTSSTHC1	L1 TUN_TX_DATA1 Z7BTSSTHC1	M1 TUN_TX_BUSY Z7ISSTFC1	N1 TUN_TX_DATA2 Z7BTSSTHC1	P1 TST_SCAN_TUN TLCHTHIF	R1 TST_OUT19 BT4RIF	T1 TST_OUT17 BT4RIF	U1 TST_OUT15 BT4RIF	V1 TST_OUT13 BT4RIF	W1 TST_OUT11 BT4RIF	Y1 TST_CLK3 TLCHTHIF	AA1 LFMONP_PLL ZEBDRV	AB1 LFMONN_PLL ZEBDRV	AC1 TST_IN18 TLCHTHIF
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	T	U	V	W	Y	AA	AB	AC

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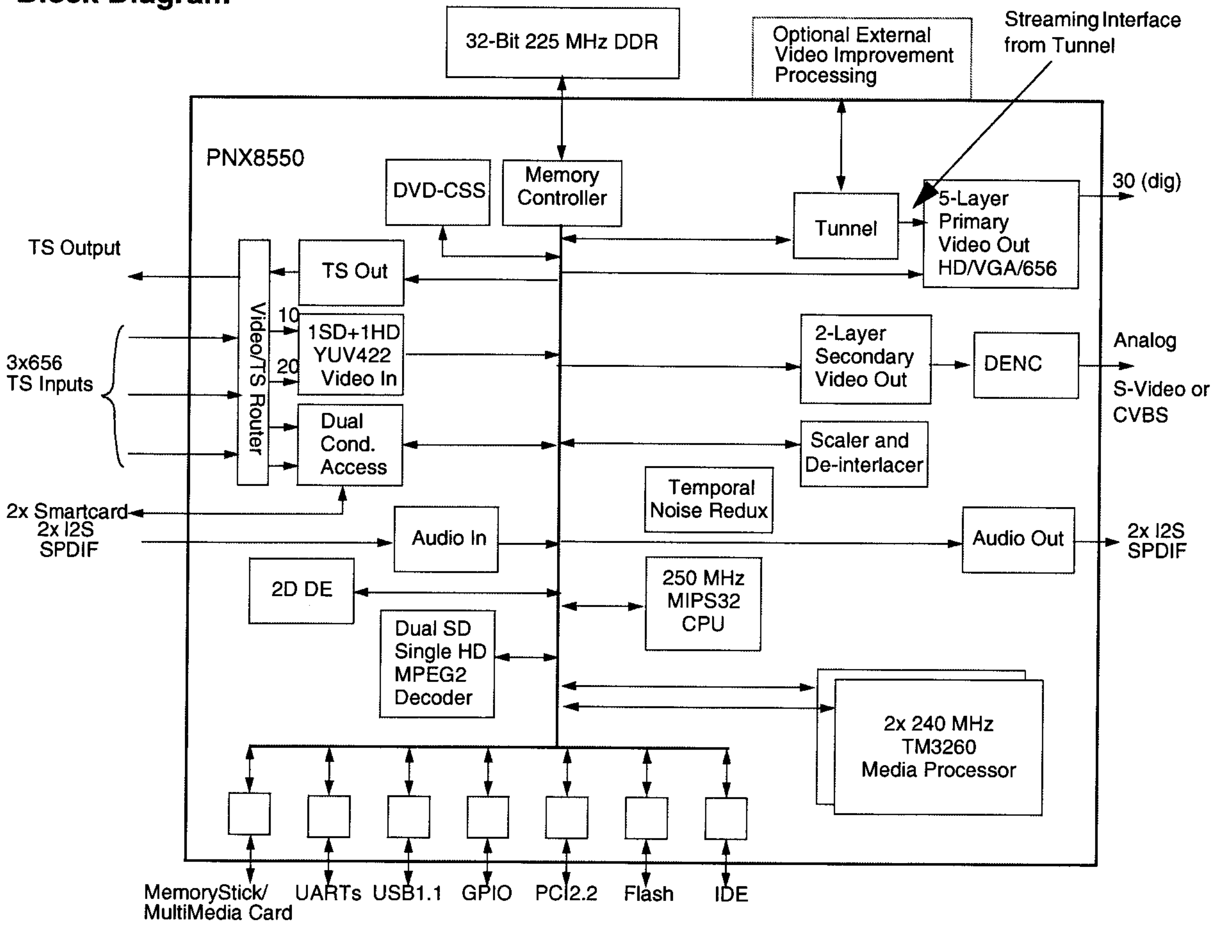
220905

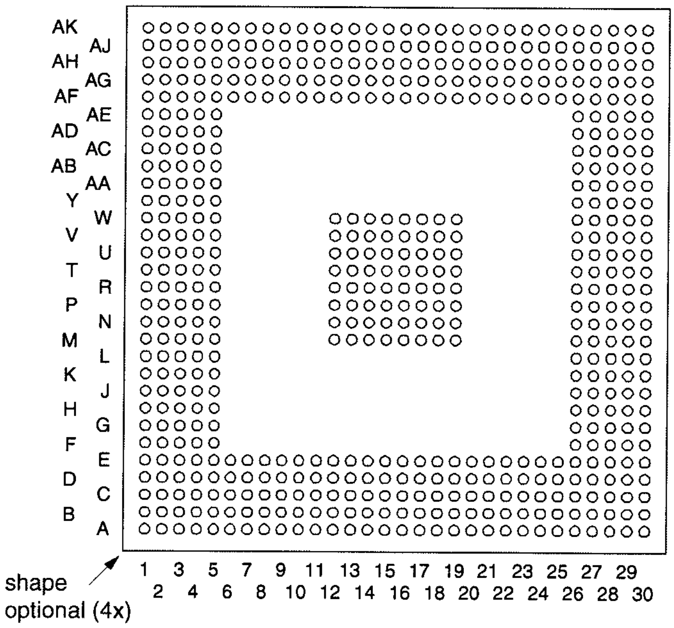
Figure 9-41 Pin configuration

9.17.6 Diagram B7x, PNX8550EH (IC 7V00)

Block Diagram


32-Bit 225 MHz DDR
Optional External Video Improvement Processing
Streaming Interface from Tunnel
PNX8550
DVD-CSS
Memory Controller
Tunnel
5-Layer Primary Video Out HD/VGA/656
30 (dig)
TS Output
TS Out
Video/TS Router
10
20
1SD+1HD YUV422 Video In
3x656 TS Inputs
2-Layer Secondary Video Out
DENC
Analog
S-Video or CVBS
Dual Cond. Access
Scaler and De-interlacer
Temporal Noise Redux
2x Smartcard
2x I2S SPDIF
Audio In
Audio Out
2x I2S SPDIF
2D DE
250 MHz MIPS32 CPU
Dual SD Single HD MPEG2 Decoder
2x 240 MHz TM3260 Media Processor
MemoryStick/ MultiMedia Card
UARTs
USB1.1
GPIO
PCI2.2
Flash
IDE

Pin Configuration


AK AJ AH AG AF AE AD AC AB AA Y W V U T R P N M L K J H G F E D C B A
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30
shape optional (4x)

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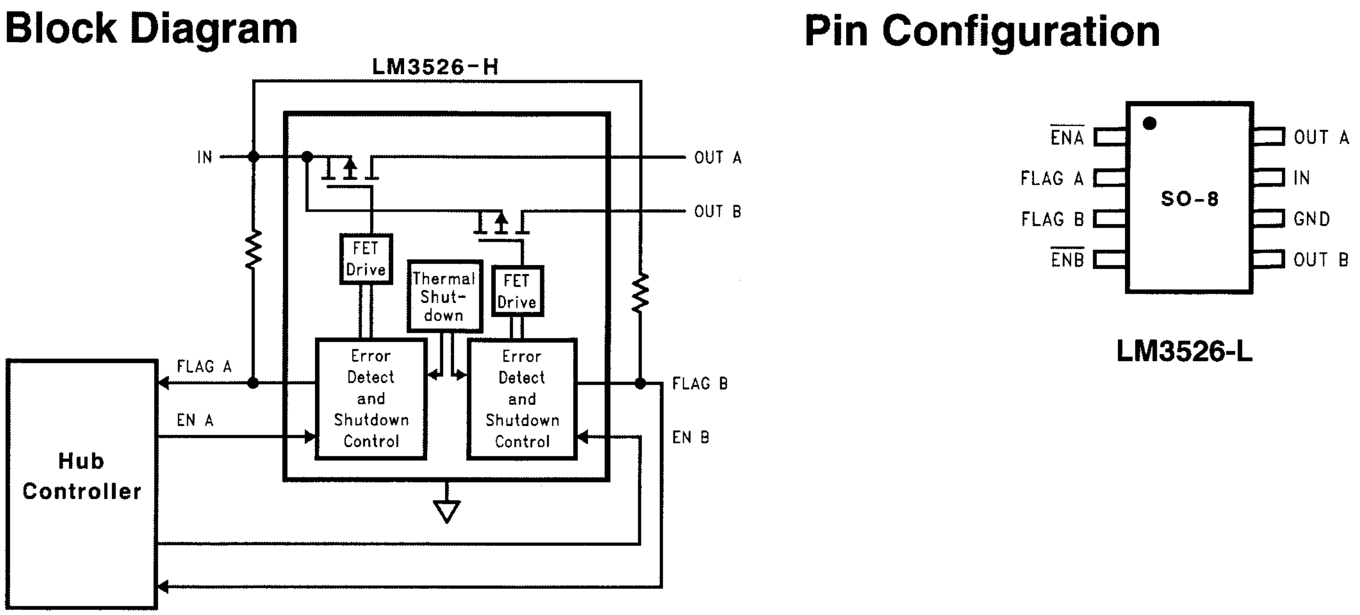
250505

Figure 9-42 Internal block diagram and pin configuration

9.17.7 Diagram B7A, LM3526MX (IC 7Q01)


Block Diagram

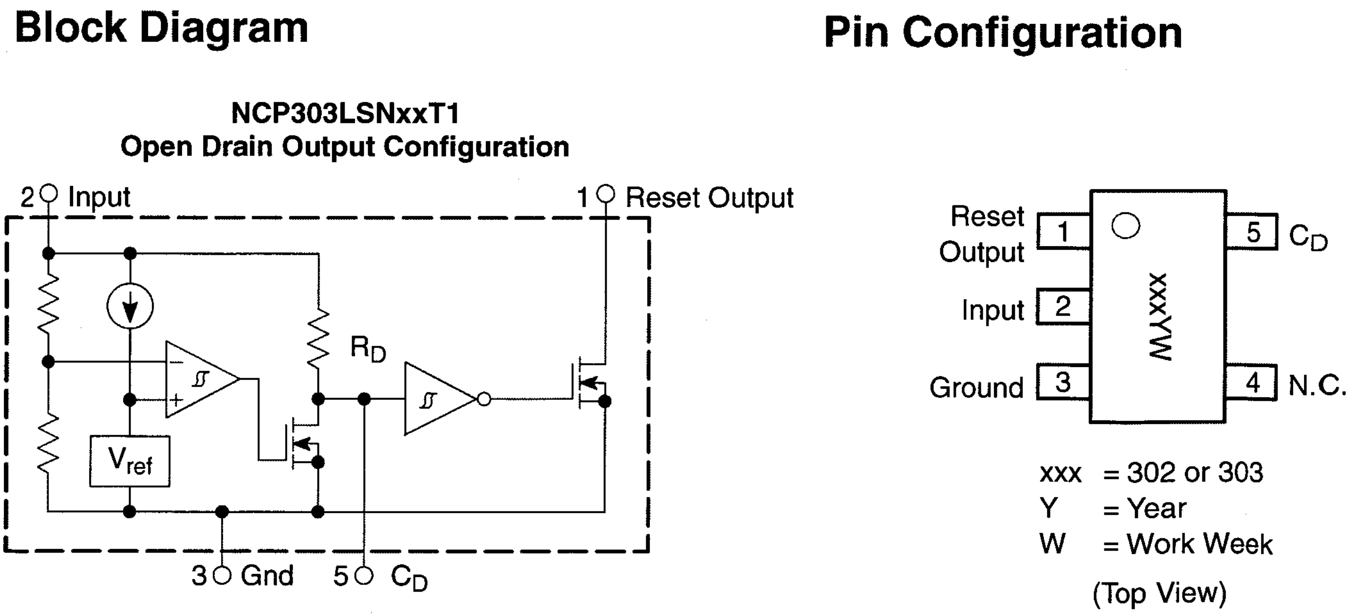
Pin Configuration

LM3526-H
IN
OUT A
OUT B
FET Drive
Thermal Shut-down
FET Drive
Error Detect and Shutdown Control
Error Detect and Shutdown Control
FLAG A
EN A
FLAG B
EN B
Hub Controller
ENA
FLAG A
FLAG B
ENB
OUT A
IN
GND
OUT B
SO-8
LM3526-L

F_15400_134.eps
230905

Figure 9-43 Internal block diagram and pin configuration

9.17.8 Diagram B8A, NCP303LSN (IC 7LB0 - 7LB4)


Block Diagram

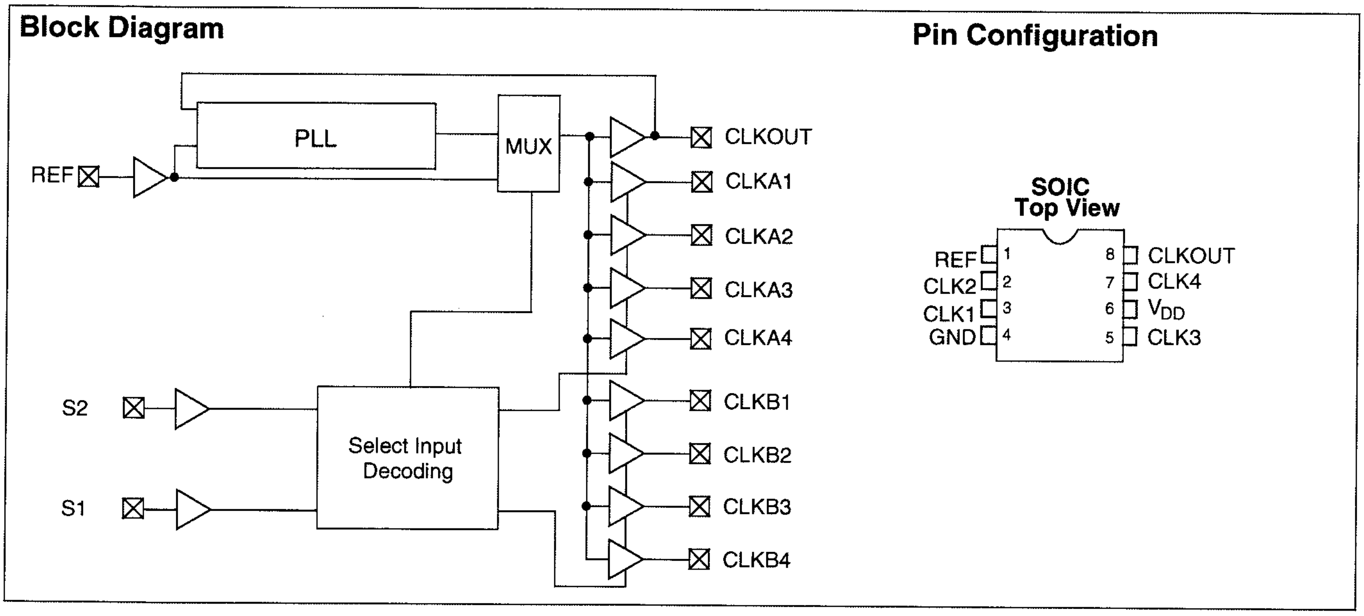
Pin Configuration

NCP303LSNxxT1
Open Drain Output Configuration
2 Input
1 Reset Output
R_D
V_ref
3 Gnd
5 C_D
Reset Output 1
Input 2
Ground 3
5 C_D
4 N.C.
xxxYW
xxx = 302 or 303
Y = Year
W = Work Week
(Top View)

F_15400_133.eps
230905

Figure 9-44 Internal block diagram and pin configuration

9.17.9 Diagram B8B, CY2305SC-1 (IC 7J08)


Block Diagram
PLL
MUX
REF
CLKOUT
CLKA1
CLKA2
CLKA3
CLKA4
S2
S1
Select Input Decoding
CLKB1
CLKB2
CLKB3
CLKB4
Pin Configuration
SOIC
Top View
REF 1
CLK2 2
CLK1 3
GND 4
8 CLKOUT
7 CLK4
6 V_{DD}
5 CLK3

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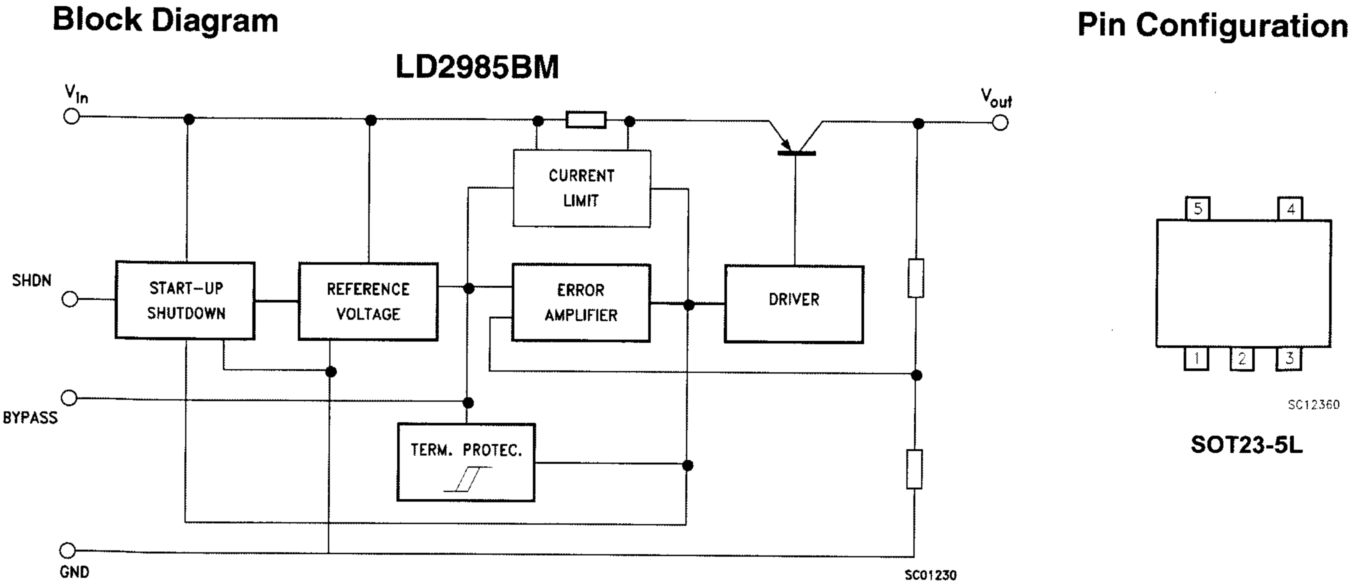
200804

Figure 9-45 Internal block diagram and pin configuration

9.17.10 Diagram B9A, LD2985BM (IC 7G00)


Block Diagram
LD2985BM
V_{in}
V_{out}
CURRENT LIMIT
SHDN
START-UP SHUTDOWN
REFERENCE VOLTAGE
ERROR AMPLIFIER
DRIVER
BYPASS
TERM. PROTEC.
GND
SC01230
Pin Configuration
5
4
1
2
3
SC12360
SOT23-5L

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230905

Figure 9-46 Internal block diagram and pin configuration

9.17.11 Diagram B9A, LD1117DT (IC7G01)

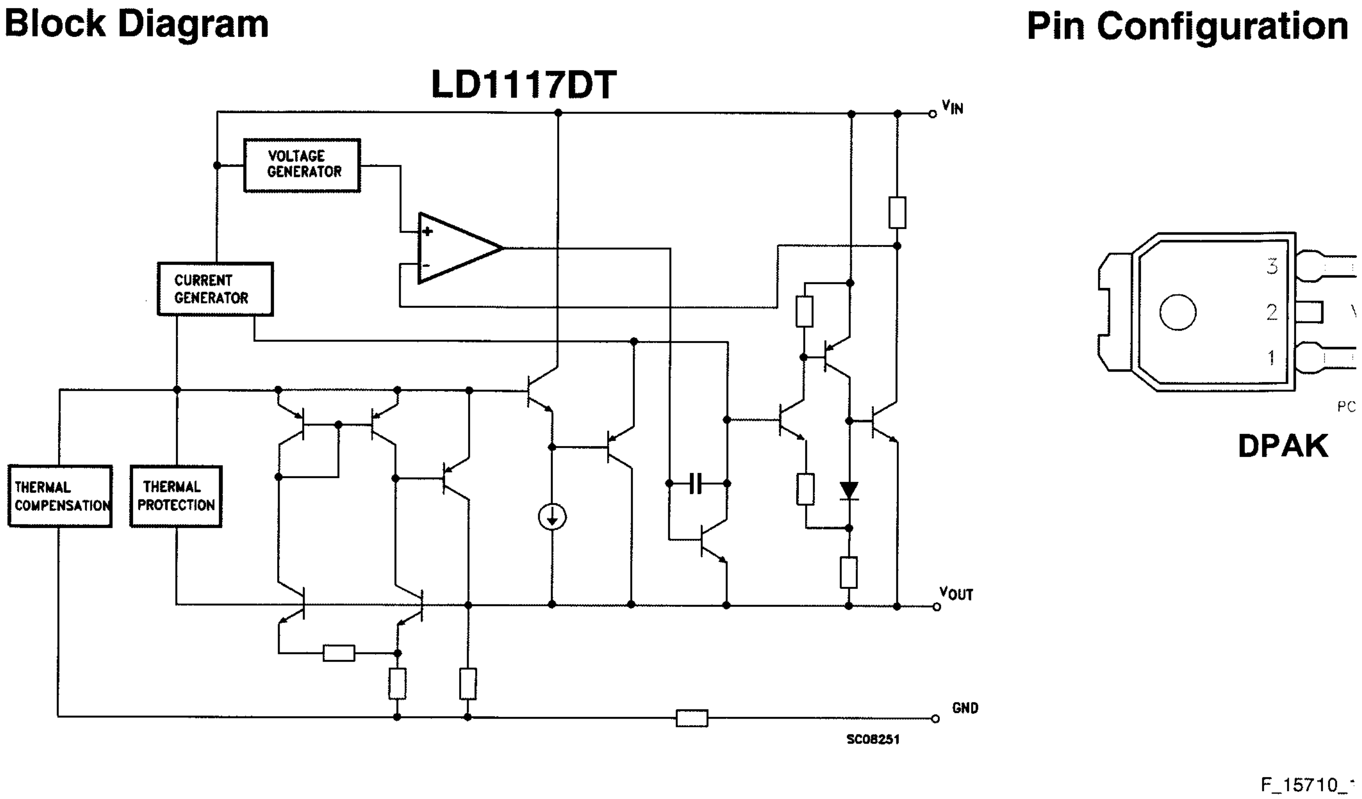
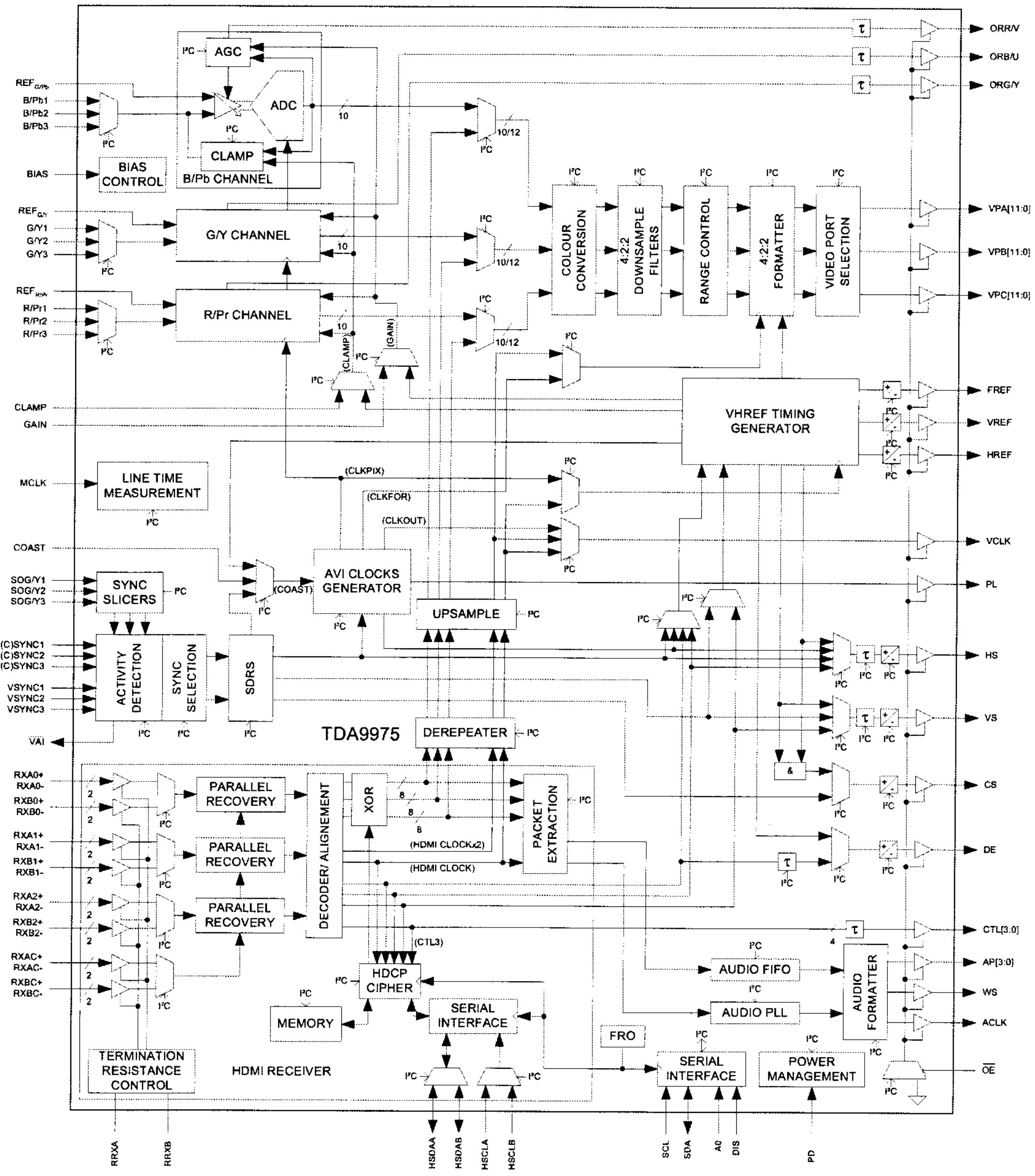

Block Diagram
LD1117DT
VIN
VOLTAGE GENERATOR
+
-
CURRENT GENERATOR
THERMAL COMPENSATION
THERMAL PROTECTION
VOUT
GND
SC08251
Pin Configuration
3
2
1
PC
DPAK
F_15710_

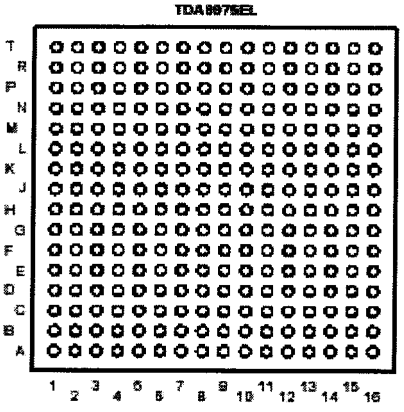
Figure 9-47 Internal block diagram and pin configuration

9.17.12 Diagram B11B & B11C, TDA9975EL (IC 7B11)

Block Diagram


REF G/Pb
B/Pb1
B/Pb2
B/Pb3
BIAS
REF G/Y
G/Y1
G/Y2
G/Y3
REF R/Pr
R/Pr1
R/Pr2
R/Pr3
CLAMP
GAIN
MCLK
COAST
SOG/Y1
SOG/Y2
SOG/Y3
H(C)SYNC1
H(C)SYNC2
H(C)SYNC3
VSYNC1
VSYNC2
VSYNC3
VAI
RXA0+
RXA0-
RXB0+
RXB0-
RXA1+
RXA1-
RXB1+
RXB1-
RXA2+
RXA2-
RXB2+
RXB2-
RXAC+
RXAC-
RXBC+
RXBC-
AGC
ADC
CLAMP
BIAS CONTROL
B/Pb CHANNEL
G/Y CHANNEL
R/Pr CHANNEL
I²C
10
10/12
(CLAMP)
(GAIN)
COLOUR CONVERSION
4:2:2 DOWNSAMPLE FILTERS
RANGE CONTROL
4:2:2 FORMATTER
VIDEO PORT SELECTION
VHREF TIMING GENERATOR
LINE TIME MEASUREMENT
(CLKPIX)
(CLKFOR)
(CLKOUT)
AVI CLOCKS GENERATOR
(COAST)
SYNC SLICERS
ACTIVITY DETECTION
SYNC SELECTION
SDRS
UPSAMPLE
TDA9975
DEREPEATER
PARALLEL RECOVERY
DECODER/ ALIGNEMENT
XOR
8
PACKET EXTRACTION
(HDMI CLOCKx2)
(HDMI CLOCK)
(CTL3)
HDCP CIPHER
MEMORY
SERIAL INTERFACE
TERMINATION RESISTANCE CONTROL
HDMI RECEIVER
FRO
AUDIO FIFO
AUDIO PLL
AUDIO FORMATTER
SERIAL INTERFACE
POWER MANAGEMENT
&
τ
4
ORR/V
ORB/U
ORG/Y
VPA[11:0]
VPB[11:0]
VPC[11:0]
FREF
VREF
HREF
VCLK
PL
HS
VS
CS
DE
CTL[3:0]
AP[3:0]
WS
ACLK
OE
RRXA
RRXB
HSDAA
HSDAB
HSCLA
HSCLB
SCL
SDA
A0
DIS
PD

Pin Configuration


TDA9975EL
T
R
P
N
M
L
K
J
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

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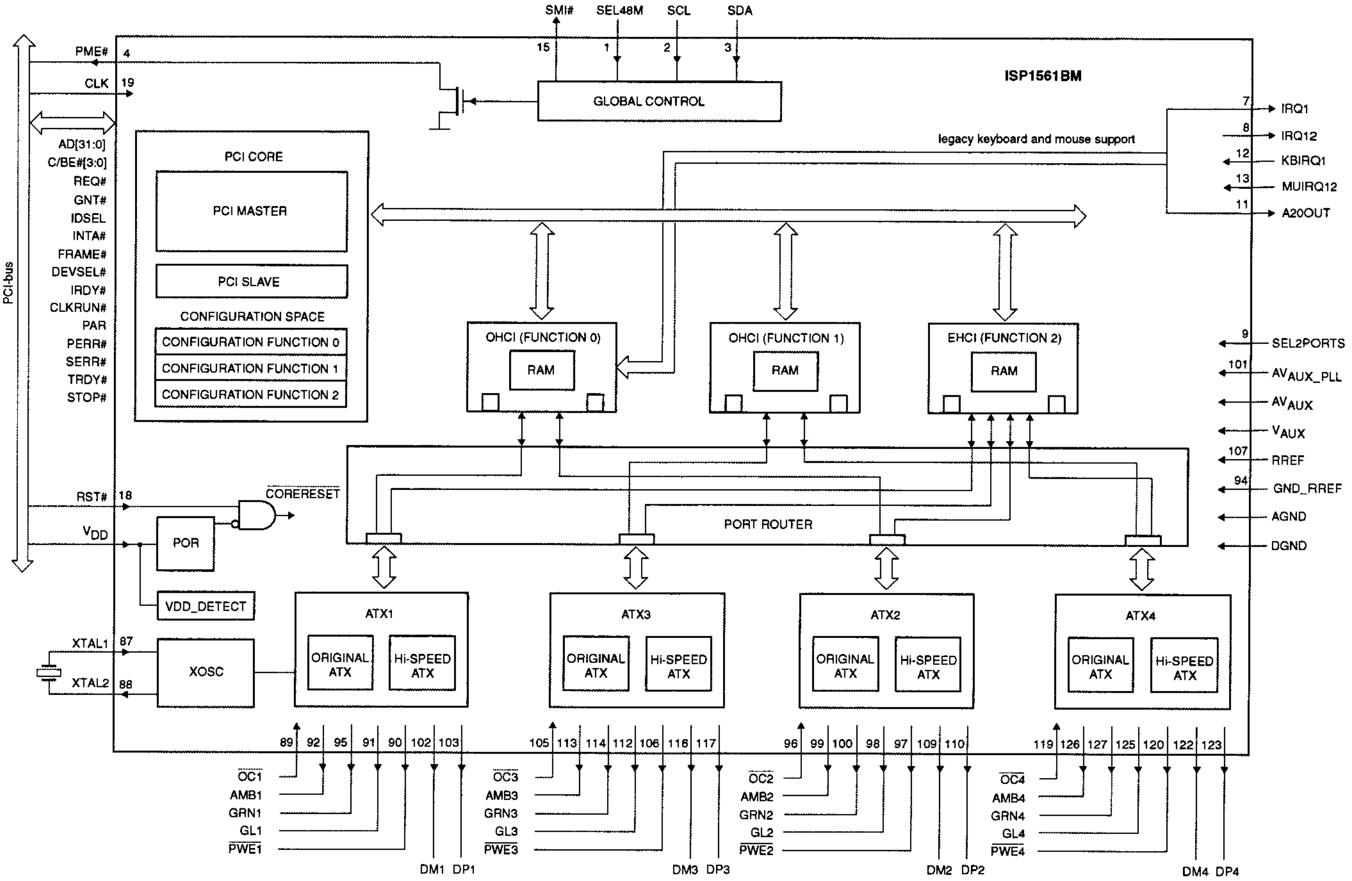
240505

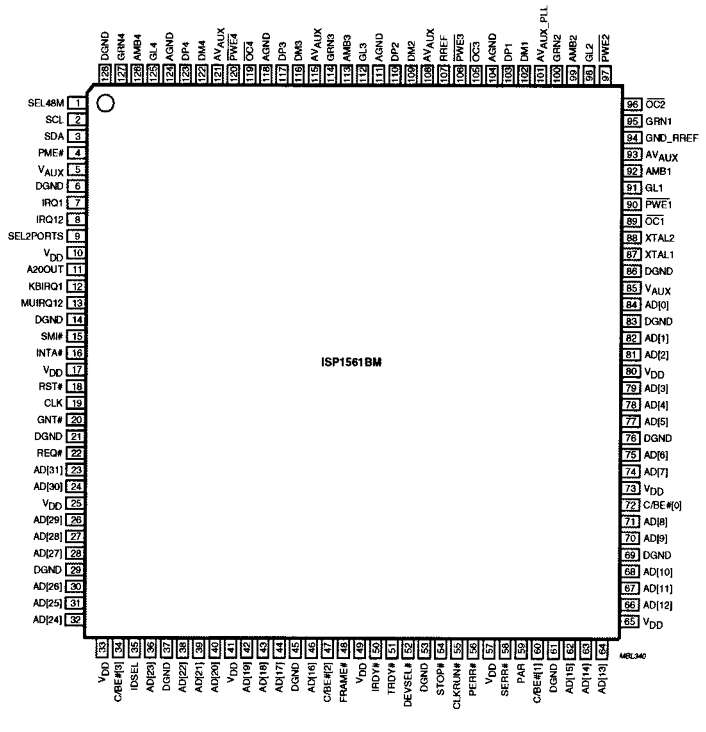
Figure 9-48 Internal block diagram and pin configuration

9.17.13 Diagram B13A, ISP1561BM (IC 7N00)

Block Diagram


SMI#
SEL48M
SCL
SDA
15
1
2
3
ISP1561BM
GLOBAL CONTROL
PME# 4
CLK 19
AD[31:0]
C/BE#[3:0]
REQ#
GNT#
IDSEL
INTA#
FRAME#
DEVSEL#
IRDY#
CLKRUN#
PAR
PERR#
SERR#
TRDY#
STOP#
PCI-bus
PCI CORE
PCI MASTER
PCI SLAVE
CONFIGURATION SPACE
CONFIGURATION FUNCTION 0
CONFIGURATION FUNCTION 1
CONFIGURATION FUNCTION 2
legacy keyboard and mouse support
7 IRQ1
8 IRQ12
12 KBIRQ1
13 MUIRQ12
11 A20OUT
OHCI (FUNCTION 0)
OHCI (FUNCTION 1)
EHCI (FUNCTION 2)
RAM
9 SEL2PORTS
101 AV_{AUX_PLL}
AV_{AUX}
V_{AUX}
107 RREF
94 GND_RREF
AGND
DGND
RST# 18
CORERESET
V_{DD}
POR
PORT ROUTER
VDD_DETECT
XTAL1 87
XTAL2 88
XOSC
ATX1
ATX3
ATX2
ATX4
ORIGINAL ATX
Hi-SPEED ATX
89 92 95 91 90 102 103
105 113 114 112 106 116 117
96 99 100 98 97 109 110
119 126 127 125 120 122 123
OC1
AMB1
GRN1
GL1
PWE1
OC3
AMB3
GRN3
GL3
PWE3
OC2
AMB2
GRN2
GL2
PWE2
OC4
AMB4
GRN4
GL4
PWE4
DM1 DP1
DM3 DP3
DM2 DP2
DM4 DP4

Pin Configuration


ISP1561BM
1 SEL48M
2 SCL
3 SDA
4 PME#
5 V_{AUX}
6 DGND
7 IRQ1
8 IRQ12
9 SEL2PORTS
10 V_{DD}
11 A20OUT
12 KBIRQ1
13 MUIRQ12
14 DGND
15 SMI#
16 INTA#
17 V_{DD}
18 RST#
19 CLK
20 GNT#
21 DGND
22 REQ#
23 AD[31]
24 AD[30]
25 V_{DD}
26 AD[29]
27 AD[28]
28 AD[27]
29 DGND
30 AD[26]
31 AD[25]
32 AD[24]
33 V_{DD}
34 C/BE#[3]
35 IDSEL
36 AD[23]
37 DGND
38 AD[22]
39 AD[21]
40 AD[20]
41 V_{DD}
42 AD[19]
43 AD[18]
44 AD[17]
45 DGND
46 AD[16]
47 C/BE#[2]
48 FRAME#
49 V_{DD}
50 IRDY#
51 TRDY#
52 DEVSEL#
53 DGND
54 STOP#
55 CLKRUN#
56 PERR#
57 V_{DD}
58 SERR#
59 PAR
60 C/BE#[1]
61 DGND
62 AD[15]
63 AD[14]
64 AD[13]
65 V_{DD}
66 AD[12]
67 AD[11]
68 AD[10]
69 DGND
70 AD[9]
71 AD[8]
72 C/BE#[0]
73 V_{DD}
74 AD[7]
75 AD[6]
76 DGND
77 AD[5]
78 AD[4]
79 AD[3]
80 V_{DD}
81 AD[2]
82 AD[1]
83 DGND
84 AD[0]
85 V_{AUX}
86 DGND
87 XTAL1
88 XTAL2
89 OC1
90 PWE1
91 GL1
92 AMB1
93 AV_{AUX}
94 GND_RREF
95 GRN1
96 OC2
97 PWE2
98 GL2
99 AMB2
100 GRN2
101 AV_{AUX_PLL}
102 DM1
103 DP1
104 AGND
105 OC3
106 PWE3
107 RREF
108 AV_{AUX}
109 DM2
110 DP2
111 AGND
112 GL3
113 AMB3
114 GRN3
115 AV_{AUX}
116 DM3
117 DP3
118 AGND
119 OC4
120 PWE4
121 AV_{AUX}
122 DM4
123 DP4
124 AGND
125 GL4
126 AMB4
127 GRN4
128 DGND
MBL340

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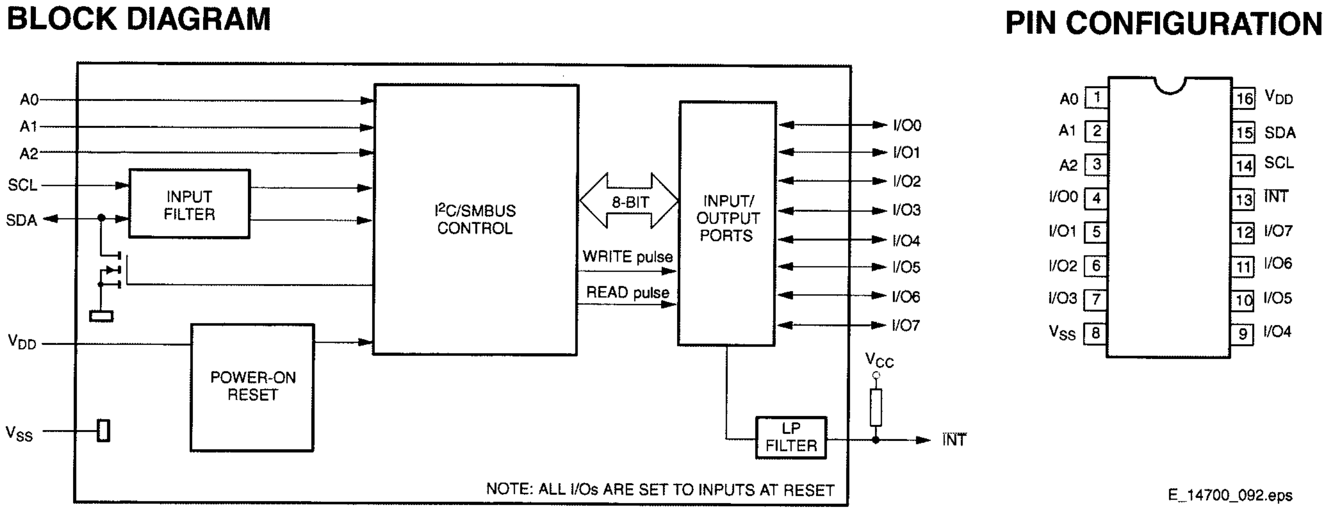
240505

Figure 9-49 Internal block diagram and pin configuration

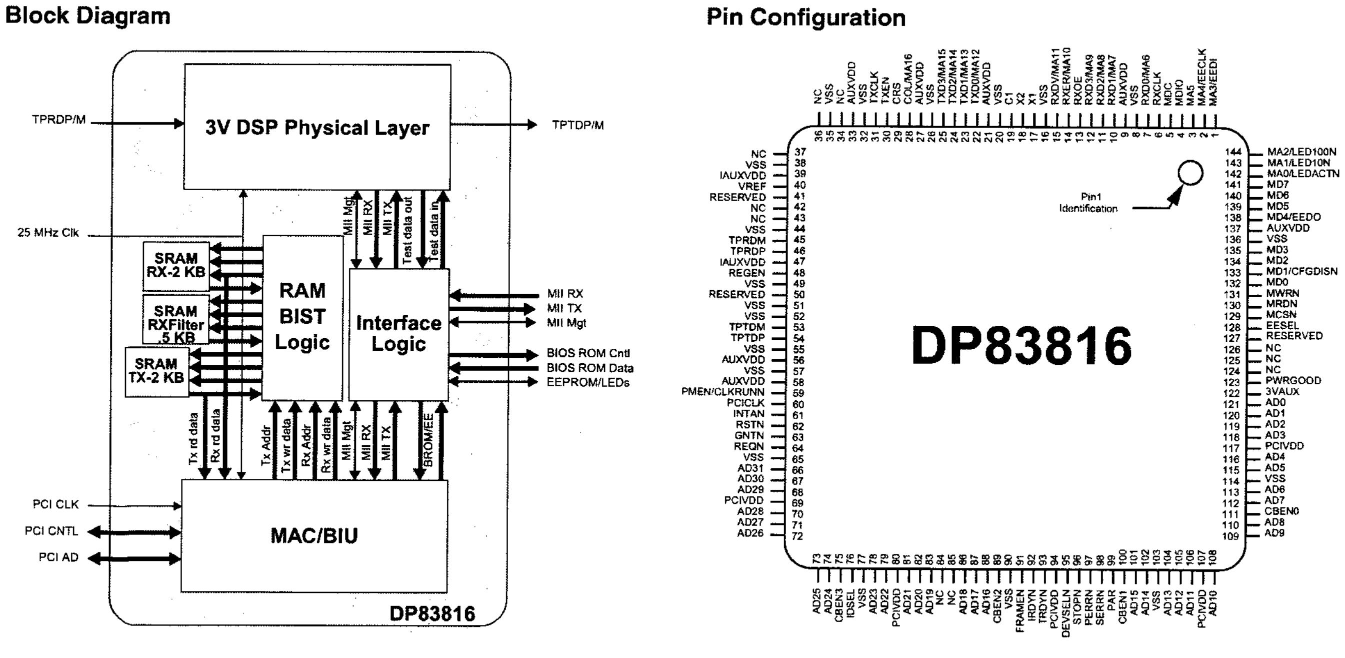
9.17.14 Diagram B14B, PCA9554PW (IC 7I55)


BLOCK DIAGRAM
A0
A1
A2
SCL
SDA
INPUT FILTER
I²C/SMBUS CONTROL
8-BIT
WRITE pulse
READ pulse
INPUT/ OUTPUT PORTS
I/O0
I/O1
I/O2
I/O3
I/O4
I/O5
I/O6
I/O7
VDD
POWER-ON RESET
VSS
VCC
LP FILTER
INT
NOTE: ALL I/Os ARE SET TO INPUTS AT RESET
PIN CONFIGURATION
A0 1
A1 2
A2 3
I/O0 4
I/O1 5
I/O2 6
I/O3 7
VSS 8
16 VDD
15 SDA
14 SCL
13 INT
12 I/O7
11 I/O6
10 I/O5
9 I/O4

E_14700_092.eps
021104

Figure 9-50 Internal block diagram and pin configuration

9.17.15 Diagram B15, DP83816AVNG (7O00)


Block Diagram
TPRDP/M
3V DSP Physical Layer
TPTDP/M
25 MHz Clk
SRAM RX-2 KB
SRAM RXFilter .5 KB
SRAM TX-2 KB
RAM BIST Logic
Interface Logic
MII Mgt
MII RX
MII TX
Test data out
Test data in
MII RX
MII TX
MII Mgt
BIOS ROM Cntl
BIOS ROM Data
EEPROM/LEDs
Tx rd data
Rx rd data
Tx Addr
Tx wr data
Rx Addr
Rx wr data
MII Mgt
MII RX
MII TX
BROM/EE
PCI CLK
PCI CNTL
PCI AD
MAC/BIU
DP83816
Pin Configuration
DP83816
Pin1 Identification
1 MA3/EEDI
2 MA4/EECLK
3 MA5
4 MDIO
5 MDC
6 RXCLK
7 RXD0/MA6
8 VSS
9 AUXVDD
10 RXD1/MA7
11 RXD2/MA8
12 RXD3/MA9
13 RXOE
14 RXER/MA10
15 RXDV/MA11
16 VSS
17 X1
18 X2
19 C1
20 VSS
21 AUXVDD
22 TXD0/MA12
23 TXD1/MA13
24 TXD2/MA14
25 TXD3/MA15
26 VSS
27 AUXVDD
28 COL/MA16
29 CRS
30 TXEN
31 TXCLK
32 VSS
33 AUXVDD
34 NC
35 VSS
36 NC
NC 37
VSS 38
IAUXVDD 39
VREF 40
RESERVED 41
NC 42
NC 43
VSS 44
TPRDM 45
TPRDP 46
IAUXVDD 47
REGEN 48
VSS 49
RESERVED 50
VSS 51
VSS 52
TPTDM 53
TPTDP 54
VSS 55
AUXVDD 56
VSS 57
AUXVDD 58
PMEN/CLKRUNN 59
PCICLK 60
INTAN 61
RSTN 62
GNTN 63
REQN 64
VSS 65
AD31 66
AD30 67
AD29 68
PCIVDD 69
AD28 70
AD27 71
AD26 72
73 AD25
74 AD24
75 CBEN3
76 IDSEL
77 VSS
78 AD23
79 AD22
80 PCIVDD
81 AD21
82 AD20
83 AD19
84 NC
85 NC
86 AD18
87 AD17
88 AD16
89 CBEN2
90 VSS
91 FRAMEN
92 IRDYN
93 TRDYN
94 PCIVDD
95 DEVSELN
96 STOPN
97 PERRN
98 SERRN
99 PAR
100 CBEN1
101 AD15
102 AD14
103 VSS
104 AD13
105 AD12
106 AD11
107 PCIVDD
108 AD10
109 AD9
110 AD8
111 CBEN0
112 AD7
113 AD6
114 VSS
115 AD5
116 AD4
117 PCIVDD
118 AD3
119 AD2
120 AD1
121 AD0
122 3VAUX
123 PWRGOOD
124 NC
125 NC
126 NC
127 RESERVED
128 EESEL
129 MCSN
130 MRDN
131 MWRN
132 MD0
133 MD1/CFGDISN
134 MD2
135 MD3
136 VSS
137 AUXVDD
138 MD4/EEDO
139 MD5
140 MD6
141 MD7
142 MA0/LEDACTN
143 MA1/LED10N
144 MA2/LED100N

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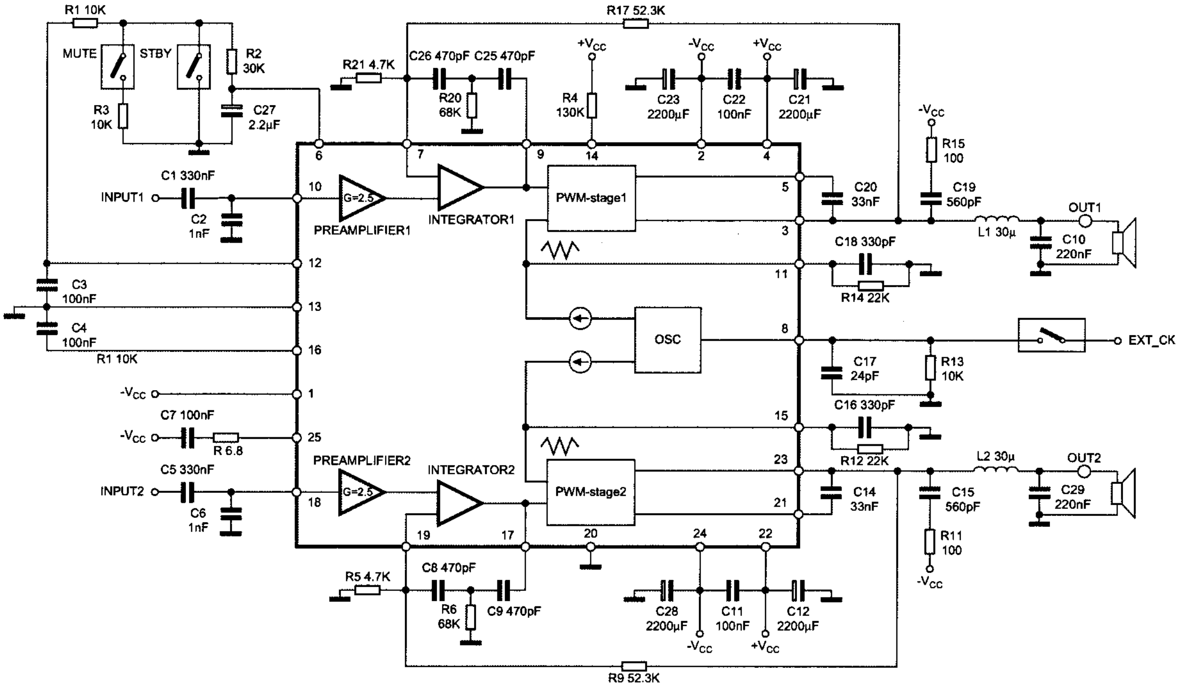
230905

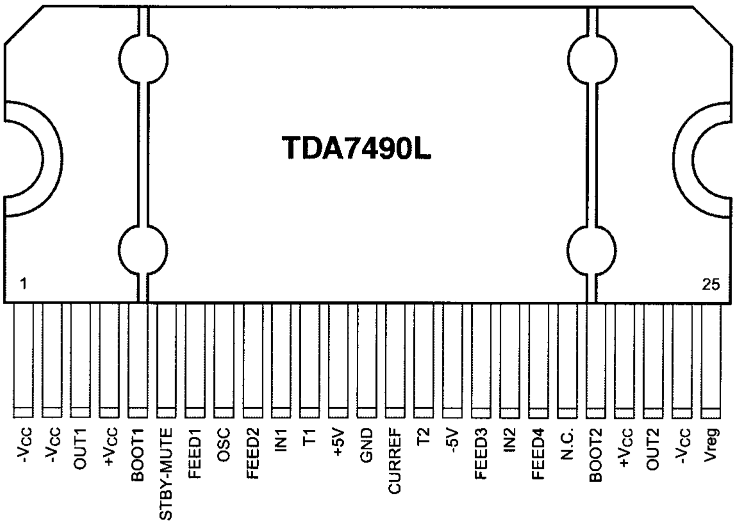
Figure 9-51 Internal block diagram and pin configuration

9.17.16 Diagram SA3, TDA7490LG (7700)

Block Diagram


R1 10K
MUTE
STBY
R2 30K
R3 10K
C27 2.2µF
R21 4.7K
C26 470pF
C25 470pF
R20 68K
R17 52.3K
+Vcc
R4 130K
-Vcc
+Vcc
C23 2200µF
C22 100nF
C21 2200µF
-Vcc
R15 100
C19 560pF
C20 33nF
INPUT1
C1 330nF
C2 1nF
G=2.5
PREAMPLIFIER1
INTEGRATOR1
PWM-stage1
L1 30µ
OUT1
C10 220nF
C18 330pF
R14 22K
C3 100nF
C4 100nF
R1 10K
OSC
EXT_CK
C17 24pF
R13 10K
-Vcc
C7 100nF
R 6.8
C16 330pF
R12 22K
PREAMPLIFIER2
INTEGRATOR2
PWM-stage2
C5 330nF
INPUT2
C6 1nF
G=2.5
L2 30µ
OUT2
C14 33nF
C15 560pF
C29 220nF
R11 100
-Vcc
R5 4.7K
C8 470pF
R6 68K
C9 470pF
C28 2200µF
C11 100nF
C12 2200µF
-Vcc
+Vcc
R9 52.3K
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

Pin Configuration (Top View)


TDA7490L
1
25
-Vcc
-Vcc
OUT1
+Vcc
BOOT1
STBY-MUTE
FEED1
OSC
FEED2
IN1
T1
+5V
GND
CURREF
T2
-5V
FEED3
IN2
FEED4
N.C.
BOOT2
+Vcc
OUT2
-Vcc
Vreg

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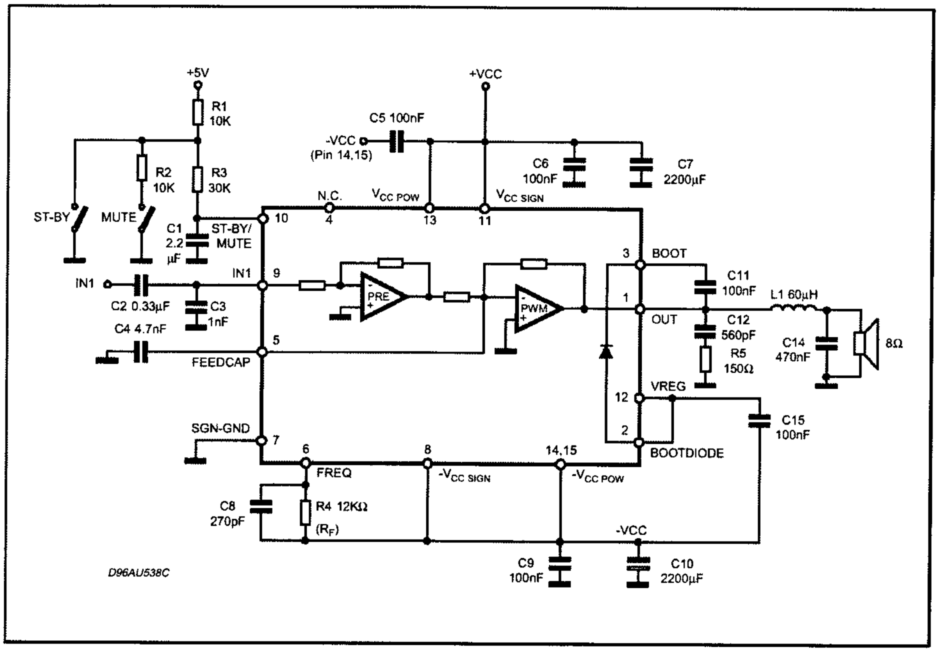
230905

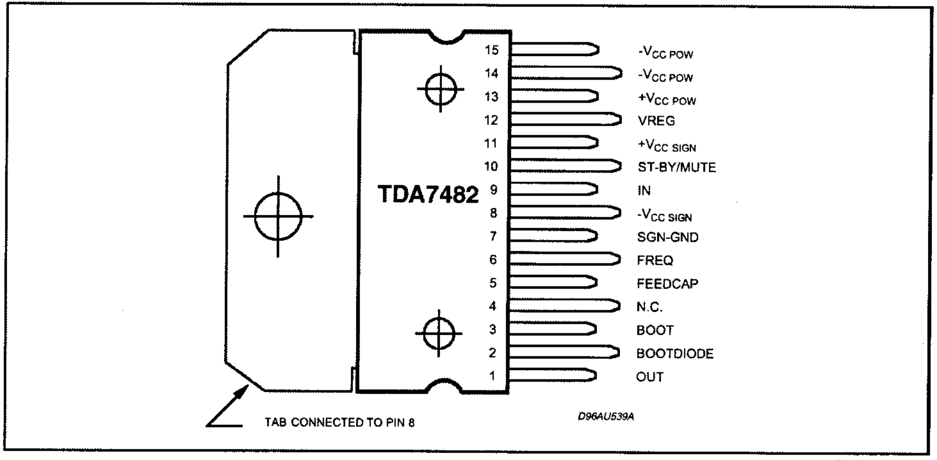
Figure 9-52 Internal block diagram and pin configuration

9.17.17 Diagram SA3, TDA7482 (7702)

Block Diagram


+5V
R1 10K
R2 10K
R3 30K
ST-BY
MUTE
C1 2.2 µF
ST-BY/ MUTE
IN1
C2 0.33µF
C3 1nF
C4 4.7nF
FEEDCAP
SGN-GND
C8 270pF
R4 12KΩ (RF)
FREQ
-VCC SIGN
-VCC POW
14,15
C9 100nF
C10 2200µF
-VCC
+VCC
C5 100nF
-VCC (Pin 14,15)
N.C.
VCC POW
VCC SIGN
C6 100nF
C7 2200µF
PRE
PWM
BOOT
OUT
VREG
BOOTDIODE
C11 100nF
L1 60µH
C12 560pF
R5 150Ω
C14 470nF
8Ω
C15 100nF
1
2
3
4
5
6
7
8
9
10
11
12
13
D96AU538C

Pin Configuration (Top View)


TDA7482
15 -VCC POW
14 -VCC POW
13 +VCC POW
12 VREG
11 +VCC SIGN
10 ST-BY/MUTE
9 IN
8 -VCC SIGN
7 SGN-GND
6 FREQ
5 FEEDCAP
4 N.C.
3 BOOT
2 BOOTDIODE
1 OUT
TAB CONNECTED TO PIN 8
D96AU539A

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230905

Figure 9-53 Internal block diagram and pin configuration

10. Spare Parts List

Set Level

Various

0180	3104 328 35421	Cardreader assy
0212	3104 308 15031	Upright stand
0213	3104 308 15011	Glass stand 32"
0213	3104 308 15021	Glass stand 37/42"
0259	3104 308 16791	Smallware stand SB9830
0266	3104 308 16831	Adaptor stand SB9830
1004	8204 000 78791	LQ370D3LZ1 (Sharp)
1004	8204 000 78801	T315XW01V3 (AUO)
1004	9322 226 58682	LQ315T3LZ23 (Sharp)
1004	9322 228 99682	LC420WU1-SL01 (LPL)
1088	3104 328 39552	Ambil. inverter assy
1089	3104 328 39552	Ambil. inverter assy
1101	3104 328 43621	Serv SSB 32PF9830/10
1101	3104 328 43631	Serv SSB 37PF9830/10
1101	3104 328 43641	Serv SSB 42PF9830/10
1111	3104 328 35412	LED Panel shield. assy
1112	3104 328 32471	LED assy
1114	3104 328 41701	Top Control assy
1116	3104 328 30791	Side I/O assy
1175	2722 171 00291	Ambi light 420R-32" assy
1175	2722 171 00293	Ambi light 420R-37" assy
1175	2722 171 00297	Ambi light 500R-42" assy
1176	2722 171 00294	Ambi light 420L-32" assy
1176	2722 171 00295	Ambi light 420L-37" assy
1176	2722 171 00296	Ambi light 500L-42" assy
8250	3104 311 11081	Cable 31p/300/51p
8250	8204 000 78381	Cable 31p/280/30p
8302	3104 311 08931	Cable 7p/1000/7p
8303	3104 311 08261	Cable 4p/820/4p
8304	3104 311 08291	Cable 4p/680/4p
8305	3104 311 08401	Cable 3p/280/3p
8305	3104 311 08411	Cable 3p/340/3p
8306	3104 311 08341	Cable 2P3/280/2p3
8306	3104 311 08351	Cable 2p3/340/2p3
8307	3104 311 04321	Cable 9p/450/9p
8308	3104 311 10301	Cable 4p/1000/4p
8309	3104 311 08321	Cable 3p/680/3p
8310	3104 311 08471	Cable 4p/680/4p
8314	3104 311 07391	Cable 10p/220/10p
8314	3104 311 07441	Cable 10p/680/10p
8314	3104 311 08531	Cable 10p/820/10p
8315	3104 311 07441	Cable 10p/680/10p
8315	3104 311 08531	Cable 10p/820/10p
8315	3104 311 10891	Cable 10p/1K1/10p
8316	3104 311 07981	Cable 12p/180/12p
8317	3104 311 08201	Cable 12p/1300/12p
8318	3104 311 06841	Cable 6p/820/6p
8318	3104 311 07421	Cable 6p/680/6p
8318	3104 311 10901	Cable 6p/1K1/6p
8320	3104 311 08331	Cable 3p/820/3p
8348	3104 311 10171	Cable 3p/1000/3p
8349	3104 311 10811	Cable 4p/680/4p
8355	3104 311 07871	Cable 7p/180/7p
8700	3104 311 08251	Wire ring/180/POSI 4.8
8735	3104 311 07491	Cable 2p3/480/2p
8736	3104 311 07551	Cable 2p3/1600/2p

~

5212	3104 130 02901	NXT Monolith spk. 32"
5212	3104 130 02931	NXT Monolith spk. 37"
5212	3104 130 02961	NXT Monolith spk. 42"
5215	2441 257 10001	Loudspeaker 6Ω 15W

LCD Supply Panel 32" [A]

Various

1007▲	4822 071 55002	Fuse T5A 250V
1304	2422 025 10647	Connector 4p m
1305	4822 267 10735	Connector 3p
1306▲	2422 025 16374	Connector 2p m
1307	2422 025 10647	Connector 4p m
1308▲	4822 265 20723	Connector 2p m
1309	2422 025 11143	Connector 3p m
1400▲	4822 253 50145	Fuse 3.15A T
1402	4822 252 60151	Surge protect
1410	4822 265 11253	Fuse holder
1411	4822 265 11253	Fuse holder
1450▲	2422 132 07411	Relay 1p 5V 5A
1M02	2422 025 11244	Connector 7p m

⊣⊢

2000▲	2252 811 95022	1.5nF 20% 250V
2002	4822 124 11767	470µF 20% 25V
2003	4822 124 80061	1000µF 20% 25V
2007	4822 126 14583	470nF 10% 16V 0805
2008	4822 126 14583	470nF 10% 16V 0805
2009	2238 867 18101	100pF 1% 50V 0603
2010	4822 124 40207	100µF 20% 25V
2012▲	4822 126 14138	680pF 10% 2kV
2013▲	4822 126 14138	680pF 10% 2kV
2014▲	4822 126 13451	2.2nF 10% 2kV
2015	5322 126 11583	10nF 10% 50V 0603
2016	2238 586 59812	100nF 20% 50V 0603
2019	5322 126 11583	10nF 10% 50V 0603
2020	4822 124 12285	2200µF 20% 16V
2021	4822 124 12285	2200µF 20% 16V
2022	2020 021 00039	1800µF 20% 35V
2023	4822 126 14583	470nF 10% 16V 0805
2024	2020 552 96326	220nF 10% 16V
2025	2020 552 96683	220nF 10% 50V
2026	4822 126 14238	2.2nF 50V 0603
2028	5322 126 11578	1nF 10% 50V 0603
2029	5322 126 11578	1nF 10% 50V 0603
2031	5322 126 11583	10nF 10% 50V 0603
2033	2020 552 96683	220nF 10% 50V
2034	2238 867 18101	100pF 1% 50V 0603
2035	2238 867 18101	100pF 1% 50V 0603
2038	2020 021 00039	1800µF 20% 35V
2039	4822 126 14583	470nF 10% 16V 0805
2040	4822 126 14249	560pF 10% 50V 0603
2041	2020 552 96683	220nF 10% 50V
2042	2020 552 96683	220nF 10% 50V
2043	2020 552 96683	220nF 10% 50V
2044	5322 126 11578	1nF 10% 50V 0603
2045	5322 126 11578	1nF 10% 50V 0603
2046	3198 017 34730	47nF 16V 0603
2047	5322 126 11583	10nF 10% 50V 0603
2048	5322 126 11578	1nF 10% 50V 0603
2050	5322 126 11578	1nF 10% 50V 0603
2051	2020 552 96683	220nF 10% 50V
2052	2020 552 96683	220nF 10% 50V
2053	2020 552 96683	220nF 10% 50V
2060	4822 126 14238	2.2nF 50V 0603
2061	4822 126 14238	2.2nF 50V 0603
2062	4822 126 14238	2.2nF 50V 0603
2063	4822 126 13881	470pF 5% 50V
2064	4822 126 13881	470pF 5% 50V
2065	4822 126 14238	2.2nF 50V 0603
2071	5322 126 11578	1nF 10% 50V 0603
2072	5322 126 11578	1nF 10% 50V 0603
2077	4822 126 14238	2.2nF 50V 0603
2290	5322 126 11583	10nF 10% 50V 0603
2291	4822 126 13881	470pF 5% 50V
2292	4822 124 12417	2200µF 20% 25V
2293	4822 126 13881	470pF 5% 50V
2294	4822 124 12417	2200µF 20% 25V
2400▲	2222 338 22474	470nF 20% 275V
2407▲	2252 811 95017	470pF 10% 250V
2816▲	2020 024 00001	330µF 20% 400V
2816▲	2020 024 90749	330µF 20% 400V

-WW-

3000▲	4822 052 10478	4.7Ω 5% 0.33W
3001	4822 051 30101	100Ω 5% 0.062W
3002	4822 117 12925	47kΩ 1% 0.063W 0603
3003	4822 117 13632	100kΩ 1% 0603 0.62W
3004	4822 051 30273	27kΩ 5% 0.062W
3005	4822 051 30333	33kΩ 5% 0.062W
3006	4822 051 30103	10kΩ 5% 0.062W
3007	4822 051 30103	10kΩ 5% 0.062W
3008	4822 051 30331	330Ω 5% 0.062W
3009	4822 051 30332	3.3Ω 5% 0.062W
3010	4822 051 30471	47Ω 5% 0.062W
3011	4822 051 30471	47Ω 5% 0.062W
3012	4822 051 30153	15kΩ 5% 0.062W
3013	4822 051 30103	10kΩ 5% 0.062W
3014▲	4822 052 10101	100Ω 5% 0.33W
3015▲	4822 052 10479	47Ω 5% 0.33W
3016	4822 051 30332	3.3Ω 5% 0.062W
3017▲	4822 052 10101	100Ω 5% 0.33W
3018▲	4822 052 10479	47Ω 5% 0.33W
3019	4822 051 30332	3.3Ω 5% 0.062W
3020	4822 051 30332	3.3Ω 5% 0.062W
3021	4822 117 12971	15Ω 5% 0603 0.62W
3022	4822 051 30681	680Ω 5% 0.062W
3023	4822 051 30153	15kΩ 5% 0.062W

3025	3198 021 31820	1.8kΩ 5% 0.062W 0603
3026	2120 368 90118	Potm. lin. 470Ω hor.
3027	4822 117 13632	100kΩ 1% 0603 0.62W
3028	4822 051 30332	3.3Ω 5% 0.062W
3029	4822 051 30332	3.3Ω 5% 0.062W
3030	4822 051 30183	18kΩ 5% 0.062W
3031	4822 051 30103	10kΩ 5% 0.062W
3032	4822 051 30103	10kΩ 5% 0.062W
3032	4822 051 30223	22kΩ 5% 0.062W
3033▲	4822 052 11108	1Ω 5% 0.5W
3034	4822 051 30102	1kΩ 5% 0.062W
3035	4822 051 30332	3.3Ω 5% 0.062W
3037	4822 051 30153	15kΩ 5% 0.062W
3040	3198 021 38220	8.2kΩ 5% 0.062W 0603
3041	4822 051 30333	33kΩ 5% 0.062W
3043	4822 051 30109	10Ω 5% 0.062W
3045	4822 117 12971	15Ω 5% 0603 0.62W
3046	4822 117 12971	15Ω 5% 0603 0.62W
3047	4822 051 30479	47Ω 5% 0.062W
3048	4822 051 30272	2.7kΩ 5% 0.062W
3050	4822 050 28204	820kΩ 1% 0.6W
3052	2322 704 67502	7.5kΩ 1% 0.5W
3053	4822 050 26804	680kΩ 1% 0.6W
3055	4822 051 30221	220Ω 5% 0.062W
3056	4822 117 12968	820Ω 5% 0.62W
3057	4822 051 30221	220Ω 5% 0.062W
3058	4822 053 20565	5.6MΩ 5% 0.25W
3061	4822 051 30683	68kΩ 5% 0.062W
3064	4822 051 30103	10kΩ 5% 0.062W
3065	4822 117 13632	100kΩ 1% 0603 0.62W
3066	4822 051 30103	10kΩ 5% 0.062W
3067	4822 051 30101	100Ω 5% 0.062W
3068	4822 051 30222	2.2kΩ 5% 0.062W
3070	4822 051 30102	1kΩ 5% 0.062W
3071	4822 051 30103	10kΩ 5% 0.062W
3075	4822 051 30102	1kΩ 5% 0.062W
3089	4822 051 30103	10kΩ 5% 0.062W
3100	4822 051 30109	10Ω 5% 0.062W
3292	4822 051 30561	560Ω 5% 0.062W
3400▲	2122 550 00158	VDR 1mA 612V
3401▲	4822 053 21475	4.7MΩ 5% 0.5W
3402▲	4822 053 21475	4.7MΩ 5% 0.5W
3403▲	4822 053 21475	4.7MΩ 5% 0.5W
3404	4822 116 83872	220Ω 5% 0.5W
3999	4822 051 30682	6.8Ω 5% 0.062W

5001▲	2422 531 02444	Transf. S13932-04Y
5002▲	3104 308 21231	Transf. 2652.0001A
5005	4822 526 10704	Bead 50 Ω at 100MHz
5007	4822 526 10704	Bead 50 Ω at 100MHz
5008	4822 526 10704	Bead 50 Ω at 100MHz
5009	4822 157 11411	Bead 80Ω at 100MHz
5010	4822 157 11411	Bead 80Ω at 100MHz
5013	4822 526 10704	Bead 50 Ω at 100MHz
5015	4822 157 11411	Bead 80Ω at 100MHz
5016	4822 157 11411	Bead 80Ω at 100MHz
5017	4822 526 10704	Bead 50 Ω at 100MHz
5025	4822 526 10704	Bead 50 Ω at 100MHz
5026	4822 526 10704	Bead 50 Ω at 100MHz
5027	4822 526 10704	Bead 50 Ω at 100MHz
5028	4822 526 10704	Bead 50 Ω at 100MHz
5040	4822 157 11411	Bead 80Ω at 100MHz
5291	2422 536 00776	33μH 10%
5292	2422 536 00776	33μH 10%
5293	2422 536 00776	33μH 10%
5403▲	3104 308 21201	Line filter DTH40383H65

6002	4822 130 11397	BAS316
6003	4822 130 11397	BAS316
6004	4822 130 80622	BAT54
6005	4822 130 80622	BAT54
6006	4822 130 11397	BAS316
6007	4822 130 11397	BAS316
6008	4822 130 11397	BAS316
6009	4822 130 11152	UDZ18B
6010	4822 130 11397	BAS316
6011	4822 130 11397	BAS316
6012	9322 208 80685	BZG05C15
6013	9322 208 80685	BZG05C15
6014	9340 548 67115	PDZ22B
6015	4822 130 11397	BAS316
6017	4822 130 11397	BAS316
6020	4822 130 11397	BAS316
6021	9322 206 26687	STPS20H100CT
6022	4822 130 11148	UDZ4.7B
6023	4822 130 11397	BAS316
6025	9322 206 26687	STPS20H100CT
6027	4822 130 11397	BAS316
6028	4822 130 11397	BAS316
6044	9322 207 11687	STPS20L45CT
6045	9322 207 11687	STPS20L45CT
6051	4822 130 11397	BAS316
6077	9322 202 55685	BYG22D
6078	9322 202 55685	BYG22D
6079	9322 202 55685	BYG22D
6080	9322 202 55685	BYG22D
6081	9340 548 67115	PDZ22B
6291	4822 130 11572	STPS8H100F
6293	4822 130 11572	STPS8H100F
6460	4822 130 11397	BAS316
6461	4822 130 11397	BAS316
6506▲	4822 130 83147	DF06M
6807▲	9322 199 74682	GBJ6J-B15

7001	9322 108 21682	MC34067P
7002▲	9322 149 04682	TCET1102
7004	3198 010 42310	BC847BW
7005	9322 192 18687	STP15NK50ZFP
7005	9322 205 26687	FQPF18N50V2
7006	9322 192 18687	STP15NK50ZFP
7006	9322 205 26687	FQPF18N50V2
7007	3198 010 42320	BC857BW
7008	3198 010 42320	BC857BW
7009	3198 010 42320	BC857BW
7010	9322 192 16685	TS2431AI
7017	3198 010 42320	BC857BW
7018	3198 010 42310	BC847BW
7030	3198 010 42310	BC847BW

LCD Supply Panel 37" [A]

Various

1007▲	4822 071 55002	Fuse T5A 250V
1302	4822 252 60151	Surge protect
1303	4822 252 60151	Surge protect
1305	4822 267 10735	Connector 3p
1306	2422 025 16374	Connector 2p m
1308	4822 265 20723	Connector 2p
1314	4822 265 11253	Fuse holder
1315	4822 265 11253	Fuse holder
1350▲	2422 132 07411	Relay 1p 5V 5A

2002	2020 012 00006	680μF 20% 25V
2003	4822 124 80061	1000μF 20% 25V
2006	5322 126 11578	1nF 10% 50V 0603
2007	2020 552 96684	470nF 10% 25V 0805
2008	4822 126 14583	470nF 10% 16V 0805
2009	4822 126 13881	470pF 5% 50V
2010	4822 124 40207	100μF 20% 25V
2012	4822 126 13862	1.5nF 10% 2kV
2013	4822 126 13862	1.5nF 10% 2kV
2014	4822 126 13451	2.2nF 10% 2kV
2015	5322 126 11583	10nF 10% 50V 0603
2016	2238 586 59812	100nF 20% 50V 0603
2018	4822 124 12417	2200μF 20% 25V
2019	5322 126 11583	10nF 10% 50V 0603
2020	2020 021 00039	1800μF 20% 35V
2021	4822 126 13881	470pF 5% 50V
2022	2020 021 00039	1800μF 20% 35V
2023	2020 552 96684	470nF 10% 25V 0805
2024	2238 586 59812	100nF 20% 50V 0603
2025	2022 552 05679	1μF 10% 16V 0805
2026	4822 126 14238	2.2nF 50V 0603
2028	5322 126 11578	1nF 10% 50V 0603
2029	5322 126 11578	1nF 10% 50V 0603
2031	5322 126 11583	10nF 10% 50V 0603
2033	2022 552 05679	1μF 10% 16V 0805
2034	4822 124 12417	2200μF 20% 25V
2035	5322 126 11578	1nF 10% 50V 0603
2036	5322 126 11578	1nF 10% 50V 0603
2037	4822 126 14238	2.2nF 50V 0603
2038	2020 021 00039	1800μF 20% 35V
2039	5322 126 11583	10nF 10% 50V 0603
2040	4822 126 14249	560pF 10% 50V 0603
2041	2020 021 00039	1800μF 20% 35V
2042	5322 126 11578	1nF 10% 50V 0603
2043	2020 021 00039	1800μF 20% 35V
2044	5322 126 11578	1nF 10% 50V 0603
2045	5322 126 11578	1nF 10% 50V 0603
2046	3198 017 34730	47nF 16V 0603
2047	5322 126 11583	10nF 10% 50V 0603
2048	5322 126 11578	1nF 10% 50V 0603
2049	5322 126 11578	1nF 10% 50V 0603
2050	5322 126 11578	1nF 10% 50V 0603

2051	5322 126 11583	10nF 10% 50V 0603
2052	4822 126 14238	2.2nF 50V 0603
2053	4822 126 13881	470pF 5% 50V
2054	4822 126 13881	470pF 5% 50V
2055	4822 126 14238	2.2nF 50V 0603
2056	4822 126 14238	2.2nF 50V 0603
2057	4822 126 14238	2.2nF 50V 0603
2058	2238 867 18101	100pF 1% 50V 0603
2059▲	2222 375 24153	15nF 5% 1kV
2060▲	2222 375 24153	15nF 5% 1kV
2061	2238 867 18101	100pF 1% 50V 0603
2062	2238 867 18101	100pF 1% 50V 0603
2063	2238 586 59812	100nF 20% 50V 0603
2300▲	2222 339 22474	470µF 20% 275V
2301▲	2222 339 22474	470µF 20% 275V
2307▲	2252 811 95065	220pF 10% 250V
2316▲	2020 024 00001	330µF 20% 400V
2318▲	2252 811 95065	220pF 10% 250V
2319	2222 338 22105	1µF 20% 275V
2320	2020 024 00001	330µF 20% 400V

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3000▲	4822 052 10478	4.7Ω 5% 0.33W
3001	4822 051 30101	100Ω 5% 0.062W
3002	4822 051 30222	2.2kΩ 5% 0.062W
3003	4822 051 30472	4.7Ω 5% 0.062W
3004	4822 051 30273	27kΩ 5% 0.062W
3005	4822 051 30333	33kΩ 5% 0.062W
3006	4822 051 30103	10kΩ 5% 0.062W
3007	4822 051 30103	10kΩ 5% 0.062W
3008	4822 051 30331	330Ω 5% 0.062W
3009	4822 051 30332	3.3Ω 5% 0.062W
3010	4822 051 30471	47Ω 5% 0.062W
3011	4822 051 30471	47Ω 5% 0.062W
3012	4822 051 30223	22kΩ 5% 0.062W
3013	4822 051 30103	10kΩ 5% 0.062W
3014▲	4822 052 10101	100Ω 5% 0.33W
3015▲	4822 052 10479	47Ω 5% 0.33W
3016	4822 051 30332	3.3Ω 5% 0.062W
3017▲	4822 052 10101	100Ω 5% 0.33W
3018▲	4822 052 10479	47Ω 5% 0.33W
3019	4822 051 30332	3.3Ω 5% 0.062W
3020	4822 051 30332	3.3Ω 5% 0.062W
3021	4822 051 20229	22kΩ 5% 0.1W
3022	4822 051 30681	680Ω 5% 0.062W
3023	4822 051 30103	10kΩ 5% 0.062W
3025	4822 051 30152	1.5Ω 5% 0.062W
3026	2120 368 90118	Potm. lin. 470Ω hor.
3027	4822 117 13632	100kΩ 1% 0603 0.62W
3028	4822 051 30102	1kΩ 5% 0.062W
3029	4822 051 30332	3.3Ω 5% 0.062W
3030	4822 051 30183	18kΩ 5% 0.062W
3031	4822 051 30103	10kΩ 5% 0.062W
3032	4822 051 30223	22kΩ 5% 0.062W
3033	4822 051 30561	560Ω 5% 0.062W
3034	4822 051 30471	47Ω 5% 0.062W
3035	4822 051 30101	100Ω 5% 0.062W
3036	4822 051 30103	10kΩ 5% 0.062W
3037	4822 051 30153	15kΩ 5% 0.062W
3039	4822 051 30102	1kΩ 5% 0.062W
3040	3198 021 38220	8.2kΩ 5% 0.062W 0603
3041	4822 051 30333	33kΩ 5% 0.062W
3042	4822 051 30222	2.2kΩ 5% 0.062W
3043	4822 051 30109	10Ω 5% 0.062W
3044	4822 051 30103	10kΩ 5% 0.062W
3045	4822 051 20229	22kΩ 5% 0.1W
3046	4822 051 20229	22kΩ 5% 0.1W
3047	4822 051 30479	47Ω 5% 0.062W
3048	4822 051 30272	2.7kΩ 5% 0.062W
3049	4822 117 13632	100kΩ 1% 0603 0.62W
3051	4822 051 30103	10kΩ 5% 0.062W
3052	4822 051 30153	15kΩ 5% 0.062W
3054	4822 051 30683	68kΩ 5% 0.062W
3055	4822 051 30221	220Ω 5% 0.062W
3056	4822 051 30221	220Ω 5% 0.062W
3057	4822 051 30221	220Ω 5% 0.062W
3059	5322 117 13019	100kΩ 1% 0.063W 0603
3060	4822 051 30103	10kΩ 5% 0.062W
3061	4822 051 30332	3.3Ω 5% 0.062W
3062	4822 051 30332	3.3Ω 5% 0.062W
3063	4822 051 30103	10kΩ 5% 0.062W
3065	4822 051 30102	1kΩ 5% 0.062W
3071	4822 050 25602	5K60 1% 0.6W
3073	4822 050 25602	5K60 1% 0.6W
3076	4822 050 25602	5K60 1% 0.6W
3077	4822 050 25602	5K60 1% 0.6W
3078	4822 050 25602	5K60 1% 0.6W
3079	4822 050 25602	5K60 1% 0.6W
3081	4822 050 25602	5K60 1% 0.6W
3082	4822 050 25602	5K60 1% 0.6W
3083	4822 050 25602	5K60 1% 0.6W
3085	4822 050 25602	5K60 1% 0.6W
3086	4822 050 25602	5K60 1% 0.6W
3087	4822 050 25602	5K60 1% 0.6W
3089	4822 051 30103	10kΩ 5% 0.062W
3300▲	2122 550 00158	VDR 1mA 612V
3301▲	4822 053 21475	4.7MΩ 5% 0.5W
3302▲	4822 053 21475	4.7MΩ 5% 0.5W
3303▲	4822 053 21475	4.7MΩ 5% 0.5W
3304	4822 116 83872	220Ω 5% 0.5W
3305	4822 116 83872	220Ω 5% 0.5W
3306	4822 051 30102	1kΩ 5% 0.062W
3308	4822 053 11223	22kΩ 5% 2W
3318	4822 053 10471	470Ω 5% 1W
3999	4822 051 30102	1kΩ 5% 0.062W

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5001▲	2422 531 02444	Transf. S13932-04Y
5002▲	3104 308 21211	Transf. BS51321-02 B
5005	4822 526 10704	Bead 50 Ω at 100MHz
5007	4822 526 10704	Bead 50 Ω at 100MHz
5008	4822 526 10704	Bead 50 Ω at 100MHz
5009	4822 157 11411	Bead 80Ω at 100MHz
5010	4822 157 11411	Bead 80Ω at 100MHz
5011▲	3104 308 21211	Transf. BS51321-02 B
5012	4822 526 10704	Bead 50 Ω at 100MHz
5013	4822 526 10704	Bead 50 Ω at 100MHz
5015	4822 157 11411	Bead 80Ω at 100MHz
5016	4822 157 11411	Bead 80Ω at 100MHz
5017	4822 526 10704	Bead 50 Ω at 100MHz
5018	2422 535 94636	3.3µF 20%
5019	2422 536 00776	33µH 10%
5020	2422 536 00776	33µH 10%
5021	4822 157 11411	Bead 80Ω at 100MHz
5022	4822 157 11411	Bead 80Ω at 100MHz
5025	4822 157 11411	Bead 80Ω at 100MHz
5026	4822 157 11411	Bead 80Ω at 100MHz
5303▲	3104 308 21201	Line filter DTH40383H65

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6002	4822 130 11397	BAS316
6003	4822 130 11397	BAS316
6004	4822 130 80622	BAT54
6005	4822 130 80622	BAT54
6006	4822 130 11397	BAS316
6007	4822 130 11397	BAS316
6008	4822 130 11397	BAS316
6010	4822 130 11397	BAS316
6011	4822 130 11397	BAS316
6012	9322 208 80685	BZG05C15
6013	9322 208 80685	BZG05C15
6014	9340 548 71115	PDZ33B
6015	4822 130 11397	BAS316
6017	4822 130 11397	BAS316
6018	4822 130 11152	UDZ18B
6019	9322 173 47687	STPS20L40CFP
6021	4822 130 11596	BYW29EX-200
6022	4822 130 11148	UDZ4.7B
6023	4822 130 11397	BAS316
6024	9322 202 55685	BYG22D
6025	9322 202 55685	BYG22D
6026	4822 130 11397	BAS316
6027	4822 130 11397	BAS316
6028	4822 130 11397	BAS316
6029	4822 130 11596	BYW29EX-200
6030	4822 130 11596	BYW29EX-200
6031	4822 130 11596	BYW29EX-200
6032	9322 202 55685	BYG22D
6033	9322 202 55685	BYG22D
6038	4822 130 11397	BAS316
6040	4822 130 11596	BYW29EX-200
6041	4822 130 11596	BYW29EX-200
6304	4822 130 11397	BAS316
6305	4822 130 11397	BAS316
6306	4822 130 83147	DF06M
6307	9322 199 74682	GBJ6J-B15
6314	9340 292 50135	BZG03-C200
6315	9340 292 50135	BZG03-C200
6316	9340 548 71115	PDZ33B
6318	4822 130 11397	BAS316
6360	4822 130 11397	BAS316
6361	4822 130 11397	BAS316

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7001	9322 108 21682	MC34067P
7003	3198 010 42310	BC847BW
7004	3198 010 42310	BC847BW
7005	9322 192 18687	STP15NK50ZFP
7006	9322 192 18687	STP15NK50ZFP
7007	3198 010 42320	BC857BW
7008	3198 010 42320	BC857BW
7009	3198 010 42320	BC857BW
7010	9322 192 16685	TS2431AI
7011	3198 010 42320	BC857BW
7012	3198 010 42310	BC847BW
7307▲	9322 149 04682	TCET1102

LCD Supply 42" Panel [A]

Various

1303	2422 025 04475	Connector 4p m
1304	2422 025 10647	Connector 4p m
1305	4822 267 10735	Connector 3p
1306	2422 025 16374	Connector 2p m
1307	2422 025 10647	Connector 4p m
1308	4822 265 20723	Connector 2p
1309	2422 025 11143	Connector 3p m
1320	2422 025 11143	Connector 3p m
1400▲	4822 070 33152	Fuse 3.15A
1402	4822 252 60151	Surge protect
1405	4822 265 11253	Fuse holder
1410	4822 265 11253	Fuse holder
1420	3104 311 08391	Cable 3p/140/3p Wh
1450▲	2422 132 07411	Relay 1p 5V 5A
1B06	4822 267 10735	Connector 3p
1C05	4822 267 10735	Connector 3p
1D00▲	4822 070 33152	Fuse 3.15A
1D02	4822 252 60151	Surge protect
1D10	4822 265 11253	Fuse holder
1D50▲	2422 132 07411	Relay 1p 5V 5A
1M02	2422 025 11244	Connector 7p m
1U07▲	4822 071 55002	Fuse T5A 250V

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2002	4822 124 11767	470µF 20% 25V
2003	4822 124 80061	1000µF 20% 25V
2007	2020 552 96684	470nF 10% 25V 0805
2008	4822 126 14583	470nF 10% 16V 0805
2009	2238 867 18101	100pF 1% 50V 0603
2010	4822 124 40207	100µF 20% 25V
2011	4822 121 70617	10nF 5% 1.6kV
2012	4822 126 13862	1.5nF 10% 2kV
2013	4822 126 13862	1.5nF 10% 2kV
2014	4822 126 13451	2.2nF 10% 2kV
2015	5322 126 11583	10nF 10% 50V 0603
2016	2238 586 59812	100nF 20% 50V 0603
2017	4822 121 70617	10nF 5% 1.6kV
2019	5322 126 11583	10nF 10% 50V 0603
2020	4822 124 12285	2200µF 20% 16V
2021	2238 867 18101	100pF 1% 50V 0603
2022	2020 021 00039	1800µF 20% 35V
2023	2020 552 96684	470nF 10% 25V 0805
2024	2020 552 96326	220nF 10% 16V
2025	4822 121 51319	1µF 10% 63V
2026	4822 126 14238	2.2nF 50V 0603
2028	5322 126 11578	1nF 10% 50V 0603
2029	5322 126 11578	1nF 10% 50V 0603
2031	5322 126 11583	10nF 10% 50V 0603
2032	4822 126 13193	4.7nF 10% 63V
2033	4822 121 51319	1µF 10% 63V
2034	2238 867 18101	100pF 1% 50V 0603
2035	5322 126 11578	1nF 10% 50V 0603
2038	2020 021 00039	1800µF 20% 35V
2039	5322 126 11583	10nF 10% 50V 0603
2040	4822 126 14249	560pF 10% 50V 0603
2044	5322 126 11578	1nF 10% 50V 0603
2045	5322 126 11578	1nF 10% 50V 0603
2046	3198 017 34730	47nF 16V 0603
2047	5322 126 11583	10nF 10% 50V 0603
2048	5322 126 11578	1nF 10% 50V 0603
2050	5322 126 11578	1nF 10% 50V 0603
2060	4822 126 14238	2.2nF 50V 0603
2061	4822 126 14238	2.2nF 50V 0603
2062	4822 126 14238	2.2nF 50V 0603
2063	4822 126 13881	470pF 5% 50V
2064	4822 126 13881	470pF 5% 50V
2065	4822 126 14238	2.2nF 50V 0603
2071	5322 126 11578	1nF 10% 50V 0603
2072	5322 126 11578	1nF 10% 50V 0603
2077	4822 126 14238	2.2nF 50V 0603
2290	5322 126 11583	10nF 10% 50V 0603
2400▲	2222 338 22474	470nF 20% 275V
2401▲	2222 338 22474	470nF 20% 275V
2405▲	2020 554 90167	220pF 10% 250V
2407▲	2020 554 90167	220pF 10% 250V
2816▲	2020 024 90749	330µF 20% 400V
2817▲	4822 121 70162	10nF 5% 400V
2B90	5322 126 11583	10nF 10% 50V 0603
2B91	4822 126 13881	470pF 5% 50V
2B92	4822 124 12417	2200µF 20% 25V

2B93	4822 126 13881	470pF 5% 50V
2B94	4822 124 12417	2200µF 20% 25V
2D00▲	2222 338 22474	470nF 20% 275V
2D01▲	2222 338 22474	470nF 20% 275V
2D05▲	2020 554 90167	220pF 10% 250V
2D07▲	2020 554 90167	220pF 10% 250V
2H16	2020 024 90749	330µF 20% 400V
2H17	4822 121 70162	10nF 5% 400V
2U02	4822 124 11767	470µF 20% 25V
2U03	4822 124 80061	1000µF 20% 25V
2U07	2020 552 96684	470nF 10% 25V 0805
2U08	4822 126 14583	470nF 10% 16V 0805
2U09	2238 867 18101	100pF 1% 50V 0603
2U10	4822 124 40207	100µF 20% 25V
2U11▲	4822 121 70617	10nF 5% 1.6kV
2U12▲	4822 126 13862	1.5nF 10% 2kV
2U13▲	4822 126 13862	1.5nF 10% 2kV
2U14▲	4822 126 13451	2.2nF 10% 2kV
2U15	5322 126 11583	10nF 10% 50V 0603
2U16	2238 586 59812	100nF 20% 50V 0603
2U17▲	4822 121 70617	10nF 5% 1.6kV
2U19	5322 126 11583	10nF 10% 50V 0603
2U21	2238 867 18101	100pF 1% 50V 0603
2U22	2020 021 00039	1800µF 20% 35V
2U23	2020 552 96684	470nF 10% 25V 0805
2U24	2020 552 96326	220nF 10% 16V
2U25	4822 121 51319	1µF 10% 63V
2U26	4822 126 14238	2.2nF 50V 0603
2U29	5322 126 11578	1nF 10% 50V 0603
2U32	4822 126 13193	4.7nF 10% 63V
2U33	4822 121 51319	1µF 10% 63V
2U34	2238 867 18101	100pF 1% 50V 0603
2U38	2020 021 00039	1800µF 20% 35V
2U39	5322 126 11583	10nF 10% 50V 0603
2U40	4822 126 14249	560pF 10% 50V 0603
2U45	5322 126 11578	1nF 10% 50V 0603
2U46	3198 017 34730	47nF 16V 0603
2U47	5322 126 11583	10nF 10% 50V 0603
2U48	5322 126 11578	1nF 10% 50V 0603
2U50	5322 126 11578	1nF 10% 50V 0603
2U60	4822 126 14238	2.2nF 50V 0603
2U61	4822 126 14238	2.2nF 50V 0603
2U62	4822 126 14238	2.2nF 50V 0603
2U63	4822 126 13881	470pF 5% 50V
2U64	4822 126 13881	470pF 5% 50V
2U65	4822 126 14238	2.2nF 50V 0603
2U71	5322 126 11578	1nF 10% 50V 0603
2U72	5322 126 11578	1nF 10% 50V 0603
2U77	4822 126 14238	2.2nF 50V 0603

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3000▲	4822 052 10478	4.7Ω 5% 0.33W
3001	4822 051 30101	100Ω 5% 0.062W
3002	4822 051 30103	10kΩ 5% 0.062W
3003	4822 117 13632	100kΩ 1% 0603 0.62W
3004	4822 051 30273	27kΩ 5% 0.062W
3005	4822 051 30333	33kΩ 5% 0.062W
3006	4822 051 30103	10kΩ 5% 0.062W
3007	4822 051 30103	10kΩ 5% 0.062W
3008	4822 051 30331	330Ω 5% 0.062W
3009	4822 051 30332	3.3Ω 5% 0.062W
3010	4822 051 30471	47Ω 5% 0.062W
3011	4822 051 30471	47Ω 5% 0.062W
3012	4822 051 30153	15kΩ 5% 0.062W
3013	4822 051 30103	10kΩ 5% 0.062W
3014▲	4822 052 10101	100Ω 5% 0.33W
3015▲	4822 052 10479	47Ω 5% 0.33W
3016	4822 051 30222	2.2kΩ 5% 0.062W
3017▲	4822 052 10101	100Ω 5% 0.33W
3018▲	4822 052 10479	47Ω 5% 0.33W
3019	4822 051 30222	2.2kΩ 5% 0.062W
3020	4822 051 30222	2.2kΩ 5% 0.062W
3021	3198 021 32290	22Ω 5% 0603
3022	4822 051 30681	680Ω 5% 0.062W
3023	4822 051 30153	15kΩ 5% 0.062W
3025	3198 021 31820	1.8kΩ 5% 0.062W 0603
3026	2120 368 90118	Potm. lin. 470Ω hor.
3027	4822 117 13632	100kΩ 1% 0603 0.62W
3028	4822 051 30102	1kΩ 5% 0.062W
3029	4822 051 30222	2.2kΩ 5% 0.062W
3030	4822 051 30183	18kΩ 5% 0.062W
3031	4822 051 30223	22kΩ 5% 0.062W
3032	4822 051 30103	10kΩ 5% 0.062W
3034	4822 051 30102	1kΩ 5% 0.062W
3037	4822 051 30153	15kΩ 5% 0.062W
3038	4822 051 30333	33kΩ 5% 0.062W
3040	3198 021 38220	8.2kΩ 5% 0.062W 0603
3041	4822 051 30333	33kΩ 5% 0.062W
3043	4822 051 30109	10Ω 5% 0.062W
3045	3198 021 32290	22Ω 5% 0603
3046	3198 021 32290	22Ω 5% 0603
3047	4822 051 30479	47Ω 5% 0.062W
3048	4822 051 30272	2.7kΩ 5% 0.062W
3050	4822 050 28204	820kΩ 1% 0.6W
3052	2322 704 67502	7.5kΩ 1% 0.5W
3053	4822 050 26804	680kΩ 1% 0.6W
3055	4822 051 30221	220Ω 5% 0.062W
3056	4822 051 30221	220Ω 5% 0.062W
3057	4822 051 30221	220Ω 5% 0.062W
3058	4822 053 20565	5.6MΩ 5% 0.25W
3061	4822 051 30683	68kΩ 5% 0.062W
3064	4822 051 30103	10kΩ 5% 0.062W
3065	4822 117 12925	47kΩ 1% 0.063W 0603
3066	4822 051 30103	10kΩ 5% 0.062W
3067	4822 051 30101	100Ω 5% 0.062W
3068	4822 051 30222	2.2kΩ 5% 0.062W
3070	4822 051 30102	1kΩ 5% 0.062W
3071	4822 051 30103	10kΩ 5% 0.062W
3075	4822 051 30102	1kΩ 5% 0.062W
3089	4822 051 30103	10kΩ 5% 0.062W
3292	4822 051 30561	560Ω 5% 0.062W
3400▲	2122 550 00158	VDR 1mA 612V
3401▲	4822 053 21475	4.7MΩ 5% 0.5W
3402▲	4822 053 21475	4.7MΩ 5% 0.5W
3403▲	4822 053 21475	4.7MΩ 5% 0.5W
3404	4822 116 83872	220Ω 5% 0.5W
3406▲	4822 052 10101	100Ω 5% 0.33W
3407▲	4822 052 10101	100Ω 5% 0.33W
3999	4822 051 30102	1kΩ 5% 0.062W
3B92	4822 051 30561	560Ω 5% 0.062W
3D00▲	2122 550 00158	VDR 1mA 612V
3D04	4822 116 83872	220Ω 5% 0.5W
3U00▲	4822 052 10478	4.7Ω 5% 0.33W
3U01	4822 051 30101	100Ω 5% 0.062W
3U02	4822 051 30103	10kΩ 5% 0.062W
3U03	4822 117 13632	100kΩ 1% 0603 0.62W
3U04	4822 051 30273	27kΩ 5% 0.062W
3U05	4822 051 30333	33kΩ 5% 0.062W
3U06	4822 051 30103	10kΩ 5% 0.062W
3U07	4822 051 30103	10kΩ 5% 0.062W
3U08	4822 051 30331	330Ω 5% 0.062W
3U09	4822 051 30332	3.3Ω 5% 0.062W
3U10	4822 051 30471	47Ω 5% 0.062W
3U11	4822 051 30471	47Ω 5% 0.062W
3U12	4822 051 30153	15kΩ 5% 0.062W
3U13	4822 051 30103	10kΩ 5% 0.062W
3U14▲	4822 052 10101	100Ω 5% 0.33W
3U15▲	4822 052 10479	47Ω 5% 0.33W
3U16	4822 051 30222	2.2kΩ 5% 0.062W
3U17▲	4822 052 10101	100Ω 5% 0.33W
3U18▲	4822 052 10479	47Ω 5% 0.33W
3U19	4822 051 30222	2.2kΩ 5% 0.062W
3U20	4822 051 30222	2.2kΩ 5% 0.062W
3U21	3198 021 32290	22Ω 5% 0603
3U22	4822 051 30331	330Ω 5% 0.062W
3U23	4822 051 30153	15kΩ 5% 0.062W
3U24	2322 704 61803	18kΩ 1% 0603
3U25	3198 021 31820	1.8kΩ 5% 0.062W 0603
3U26	2120 368 90118	Potm. lin. 470Ω hor.
3U27	4822 117 13632	100kΩ 1% 0603 0.62W
3U28	4822 051 30102	1kΩ 5% 0.062W
3U29	4822 051 30222	2.2kΩ 5% 0.062W
3U30	4822 051 30183	18kΩ 5% 0.062W
3U31	4822 051 30223	22kΩ 5% 0.062W
3U32	4822 051 30103	10kΩ 5% 0.062W
3U34	4822 051 30102	1kΩ 5% 0.062W
3U38	4822 051 30333	33kΩ 5% 0.062W
3U39	4822 051 30331	330Ω 5% 0.062W
3U40	3198 021 38220	8.2kΩ 5% 0.062W 0603
3U41	4822 051 30333	33kΩ 5% 0.062W
3U43	4822 051 30109	10Ω 5% 0.062W
3U45	3198 021 32290	22Ω 5% 0603
3U46	3198 021 32290	22Ω 5% 0603
3U47	4822 051 30479	47Ω 5% 0.062W
3U48	4822 051 30272	2.7kΩ 5% 0.062W
3U50	4822 050 28204	820kΩ 1% 0.6W
3U52	4822 051 30221	220Ω 5% 0.062W
3U53	4822 050 26804	680kΩ 1% 0.6W
3U55	4822 051 30221	220Ω 5% 0.062W
3U56	4822 051 30221	220Ω 5% 0.062W
3U57	4822 051 30221	220Ω 5% 0.062W
3U58	4822 053 20565	5.6MΩ 5% 0.25W
3U61	4822 051 30683	68kΩ 5% 0.062W
3U64	4822 051 30103	10kΩ 5% 0.062W
3U65	4822 117 12925	47kΩ 1% 0.063W 0603
3U66	4822 051 30103	10kΩ 5% 0.062W
3U67	4822 051 30101	100Ω 5% 0.062W
3U68	4822 051 30222	2.2kΩ 5% 0.062W
3U70	4822 051 30102	1kΩ 5% 0.062W
3U71	4822 051 30103	10kΩ 5% 0.062W
3U75	4822 051 30102	1kΩ 5% 0.062W
3U89	4822 051 30103	10kΩ 5% 0.062W

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5001	2422 531 02444	Transf. S13932-04Y
5002▲	3104 308 21111	Transf. BS51312-01
5004	4822 526 10704	Bead 50 Ω at 100MHz
5005	4822 157 11411	Bead 80Ω at 100MHz
5007	4822 526 10704	Bead 50 Ω at 100MHz
5008	4822 157 11411	Bead 80Ω at 100MHz
5009	4822 157 11411	Bead 80Ω at 100MHz
5010	4822 157 11411	Bead 80Ω at 100MHz
5013	4822 157 11411	Bead 80Ω at 100MHz
5015	4822 157 11411	Bead 80Ω at 100MHz
5016	4822 157 11411	Bead 80Ω at 100MHz
5017	4822 526 10704	Bead 50 Ω at 100MHz
5025	4822 157 11411	Bead 80Ω at 100MHz
5026	4822 157 11411	Bead 80Ω at 100MHz
5027	4822 157 11411	Bead 80Ω at 100MHz
5028	4822 157 11411	Bead 80Ω at 100MHz
5040	4822 157 11411	Bead 80Ω at 100MHz
5041	4822 526 10704	Bead 50 Ω at 100MHz
5400▲	2422 549 43286	Filt. DMF2835H*B
5403▲	3104 308 21201	Line filter DTH40383H65
5B91	2422 536 00776	33µH 10%
5B92	2422 536 00776	33µH 10%
5B93	2422 536 00776	33µH 10%
5D00▲	2422 549 43286	Filt. DMF2835H*B
5D03▲	3104 308 21201	Line filter DTH40383H65
5U01▲	2422 531 02444	Transf. S13932-04Y
5U02▲	3104 308 21111	Transf. BS51312-01
5U04	4822 526 10704	Bead 50 Ω at 100MHz
5U05	4822 157 11411	Bead 80Ω at 100MHz
5U07	4822 526 10704	Bead 50 Ω at 100MHz
5U08	4822 157 11411	Bead 80Ω at 100MHz
5U09	4822 157 11411	Bead 80Ω at 100MHz
5U10	4822 157 11411	Bead 80Ω at 100MHz
5U13	4822 157 11411	Bead 80Ω at 100MHz
5U15	4822 157 11411	Bead 80Ω at 100MHz
5U16	4822 157 11411	Bead 80Ω at 100MHz
5U17	4822 526 10704	Bead 50 Ω at 100MHz
5U25	4822 157 11411	Bead 80Ω at 100MHz
5U26	4822 157 11411	Bead 80Ω at 100MHz
5U40	4822 157 11411	Bead 80Ω at 100MHz
5U41	4822 526 10704	Bead 50 Ω at 100MHz

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6001	4822 130 11397	BAS316
6002	4822 130 11397	BAS316
6003	4822 130 11397	BAS316
6004	4822 130 80622	BAT54
6005	4822 130 80622	BAT54
6006	4822 130 11397	BAS316
6007	4822 130 11397	BAS316
6008	4822 130 11397	BAS316
6009	4822 130 11152	UDZ18B
6010	4822 130 11397	BAS316
6011	4822 130 11397	BAS316
6012	9322 208 80685	BZG05C15
6013	9322 208 80685	BZG05C15
6014	4822 130 11596	BYW29EX-200
6015	9340 548 67115	PDZ22B
6016	4822 130 11397	BAS316
6017	4822 130 11397	BAS316
6020	4822 130 11397	BAS316
6021	9322 192 03687	STPS20H100CFP
6022	4822 130 11148	UDZ4.7B
6023	4822 130 11397	BAS316
6027	4822 130 11397	BAS316
6028	4822 130 11397	BAS316
6044	9322 207 11687	STPS20L45CT
6051	4822 130 11397	BAS316
6077	9322 202 55685	BYG22D
6078	5322 130 31938	BYV27-200
6079	9322 202 55685	BYG22D
6080	9322 202 55685	BYG22D
6081	9340 548 67115	PDZ22B
6156	9322 099 61685	BYG10J
6157	9322 099 61685	BYG10J
6158	9322 099 61685	BYG10J
6159	9322 099 61685	BYG10J
6460	4822 130 11397	BAS316
6461	4822 130 11397	BAS316
6506	4822 130 83147	DF06M
6807	9322 199 74682	GBJ6J-B15
6B91	4822 130 11596	BYW29EX-200
6B93	4822 130 11596	BYW29EX-200
6D60	4822 130 11397	BAS316
6D61	4822 130 11397	BAS316
6H07	9322 199 74682	GBJ6J-B15
6U01	4822 130 11397	BAS316
6U02	4822 130 11397	BAS316
6U03	4822 130 11397	BAS316

6U04	4822 130 80622	BAT54
6U05	4822 130 80622	BAT54
6U06	4822 130 11397	BAS316
6U07	4822 130 11397	BAS316
6U08	4822 130 11397	BAS316
6U09	4822 130 11152	UDZ18B
6U10	4822 130 11397	BAS316
6U11	4822 130 11397	BAS316
6U12	9322 208 80685	BZG05C15
6U13	9322 208 80685	BZG05C15
6U15	9340 548 67115	PDZ22B
6U16	4822 130 11397	BAS316
6U17	4822 130 11397	BAS316
6U20	4822 130 11397	BAS316
6U21	9322 192 03687	STPS20H100CFP
6U22	4822 130 11148	UDZ4.7B
6U23	4822 130 11397	BAS316
6U27	4822 130 11397	BAS316
6U28	4822 130 11397	BAS316
6U51	4822 130 11397	BAS316
6U77	9322 202 55685	BYG22D
6U78	5322 130 31938	BYV27-200
6U79	9322 202 55685	BYG22D
6U81	9340 548 67115	PDZ22B

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7001	9322 108 21682	MC34067P
7002▲	9322 149 04682	TCET1102
7004	3198 010 42310	BC847BW
7005	9322 192 18687	STP15NK50ZFP
7006	9322 192 18687	STP15NK50ZFP
7007	3198 010 42320	BC857BW
7008	3198 010 42320	BC857BW
7009	3198 010 42320	BC857BW
7010	4822 209 16406	TL431ACD
7017	3198 010 42320	BC857BW
7018	3198 010 42310	BC847BW
7030	3198 010 42310	BC847BW
7U01	9322 108 21682	MC34067P
7U02▲	9322 149 04682	TCET1102
7U04	3198 010 42310	BC847BW
7U05	9322 192 18687	STP15NK50ZFP
7U06	9322 192 18687	STP15NK50ZFP
7U07	3198 010 42320	BC857BW
7U08	3198 010 42320	BC857BW
7U09	3198 010 42320	BC857BW
7U10	4822 209 16406	TL431ACD
7U17	3198 010 42320	BC857BW
7U18	3198 010 42310	BC847BW
7U30	3198 010 42310	BC847BW

Interface DC/DC Panel [AB]

Various

1D40	2422 025 18736	Conn. 12p m SMD no-Pb
1D55	2422 025 17765	Connector 7p m

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2D10	5322 124 41945	22µF 20% 35V
2D30	2238 586 59812	100nF 20% 50V 0603
2D31	2020 552 96618	1nF 10% 50V 0402
2D32	2238 586 59812	100nF 20% 50V 0603
2D33	2022 552 05635	22µF 10% 16V
2D33	2222 784 13681	22µF 10% 16V X5R 1812
2D34	2022 552 05635	22µF 10% 16V
2D34	2222 784 13681	22µF 10% 16V X5R 1812
2D35	2238 586 59812	100nF 20% 50V 0603
2D36	2022 552 05679	1µF 10% 16V 0805
2D37	2020 552 96618	1nF 10% 50V 0402
2D38	2020 552 96618	1nF 10% 50V 0402
2D39	2020 552 96618	1nF 10% 50V 0402
2D40	2238 586 59812	100nF 20% 50V 0603
2D41	2238 586 59812	100nF 20% 50V 0603
2D42	2238 916 15641	22nF 10% 25V 0603
2D43	2022 552 05635	22µF 10% 16V
2D43	2222 784 13681	22µF 10% 16V X5R 1812
2D44	2020 552 96628	10nF 10% 16V 0402
2D45	2020 552 96628	10nF 10% 16V 0402
2D46	3198 035 04710	470pF 50V 0402
2D47	2238 586 59812	100nF 20% 50V 0603
2D48	5322 124 41945	22µF 20% 35V
2D49	2020 552 96628	10nF 10% 16V 0402
2D50	2022 552 05679	1µF 10% 16V 0805
2D51	2238 586 59812	100nF 20% 50V 0603
2D52	2238 586 59812	100nF 20% 50V 0603
2D53	2020 552 96618	1nF 10% 50V 0402
2D54	2238 586 59812	100nF 20% 50V 0603
2D55	2020 552 96618	1nF 10% 50V 0402
2D56	3198 035 03320	3.3nF 5% 50V 0402
2D57	2020 552 96628	10nF 10% 16V 0402
2D59	4822 117 13605	Jumper 0402
2D61	4822 117 13605	Jumper 0402
2D62	2020 552 96628	10nF 10% 16V 0402

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3D20	4822 117 13606	10kΩ 5% 0.01W 0402
3D21	4822 117 13606	10kΩ 5% 0.01W 0402
3D22	4822 117 13606	10kΩ 5% 0.01W 0402
3D23	4822 117 13545	100Ω 1% 0402
3D24	3198 031 04730	47Ω 5% 0402
3D25▲	5322 117 11726	10Ω 5%
3D26	4822 117 13548	1kΩ 5% 0402
3D27	4822 051 30109	10Ω 5% 0.062W
3D28	4822 051 30109	10Ω 5% 0.062W
3D29	4822 117 11297	100kΩ 5% 0.1W
3D30	4822 117 13613	2.2Ω 5% 0603
3D31	3198 031 06820	6.8kΩ 5% 0.01W 0402
3D32	4822 117 13548	1kΩ 5% 0402
3D33	4822 117 13606	10kΩ 5% 0.01W 0402
3D34	2322 706 71002	1kΩ 1% 0402
3D35	2322 706 73902	3.9kΩ 1% 0402
3D36	3198 031 02720	2.7kΩ 5% 0.01W 0402
3D37	3198 031 04720	4.7kΩ 5% 0402
3D38	4822 117 13548	1kΩ 5% 0402
3D39	3198 031 04720	4.7kΩ 5% 0402
3D40	4822 117 13606	10kΩ 5% 0.01W 0402
3D41	4822 117 13606	10kΩ 5% 0.01W 0402
3D42	4822 117 13606	10kΩ 5% 0.01W 0402
3D43	4822 117 13548	1kΩ 5% 0402
3D44	4822 117 13606	10kΩ 5% 0.01W 0402
3D45	3198 031 04730	47Ω 5% 0402
3D47	4822 117 13545	100Ω 1% 0402
3D48	4822 117 13606	10kΩ 5% 0.01W 0402
3D49	4822 117 13606	10kΩ 5% 0.01W 0402
3D50	4822 117 13606	10kΩ 5% 0.01W 0402
3D51	4822 117 13606	10kΩ 5% 0.01W 0402
3D52	4822 117 13545	100Ω 1% 0402
3D53	4822 117 13608	4.7Ω 5% 0603 0.62W
3D58	4822 117 13545	100Ω 1% 0402
3D60	4822 117 13545	100Ω 1% 0402
3D62	4822 117 13596	220Ω 5% 0.01W 0402
9D81	4822 051 20008	Jumper 0805
9D82	4822 051 20008	Jumper 0805
9D83	4822 117 13605	Jumper 0402

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5D11	2422 536 00671	10µH 20%
5D12	2422 549 44197	Bead 220Ω at 100MHz
5D13	2422 549 44197	Bead 220Ω at 100MHz
5D14	2422 536 00779	10µH 20%

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6D01	9322 159 70685	MM3Z9V1
6D02	4822 130 11397	BAS316
6D06	3198 020 55680	BZX384-C5V6
6D62	9322 102 64685	UDZ2.7B

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7D04	9322 182 77668	L6910
7D05	9322 160 70668	SI4936ADY
7D06	9340 425 20115	BC847BS
7D08	9340 425 30115	BC847BPN
7D09	3198 010 42310	BC847BW
7D10	9340 425 30115	BC847BPN

Ambilight inverter Panel [AL]

Various

1010▲	2422 086 00657	Fuse 3A 125V F SMD
1050	2422 543 01431	Xtal 20MHz 16pF
1M08	2422 025 09406	Connector 4p m
1M10	2422 025 09406	Connector 4p m
1M11	2422 025 19068	Connector 11p m
1M12	2422 025 19069	Connector 3p m
1M48	2422 025 10768	Connector 3p m
1M49	2422 025 18884	Connector 4p m
8135	3104 311 08801	Flex foil 40p/140/40p
8220	3104 311 07281	Cable 12p/680/12p
8303	3104 311 07971	Cable 10p/280/10p
8308	3104 311 06951	Cable 2p3/180/2p
8336	3104 311 07471	Cable 11p/680/11p
8346	3104 311 07401	Cable 11p/180/11p
8349	3104 311 10511	Cable 4p/180/4p
8352	3104 311 06061	Cable 9p/180/9p

⊣⊢

2001	2020 012 00018	1000µF 20% 16V
2002	2238 586 59812	100nF 20% 50V 0603
2003	2020 552 96618	1nF 10% 50V 0402
2004	2020 552 96618	1nF 10% 50V 0402
2005	3198 034 01590	15pF 1% 50V 0402
2006	3198 034 01590	15pF 1% 50V 0402
2020	2238 580 15645	47nF 10% 50V 0805
2021	2238 580 15645	47nF 10% 50V 0805
2030	2238 580 15645	47nF 10% 50V 0805
2032	2238 580 15645	47nF 10% 50V 0805
2040	2238 580 15645	47nF 10% 50V 0805
2042	2238 580 15645	47nF 10% 50V 0805
2050	2238 580 15645	47nF 10% 50V 0805
2052	2238 580 15645	47nF 10% 50V 0805
2060	2238 580 15645	47nF 10% 50V 0805
2062	2238 580 15645	47nF 10% 50V 0805
2070	2238 580 15645	47nF 10% 50V 0805
2071	2238 580 15645	47nF 10% 50V 0805

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3003	4822 117 13596	220Ω 5% 0.01W 0402
3004	4822 051 20471	470Ω 5% 0.1W
3005	4822 051 20561	560Ω 5% 0.1W
3006	2322 762 60102	1kΩ 5% 2512
3007	2322 762 60102	1kΩ 5% 2512
3008	4822 051 20471	470Ω 5% 0.1W
3009	4822 051 20561	560Ω 5% 0.1W
3010	2322 762 60102	1kΩ 5% 2512
3011	2322 762 60102	1kΩ 5% 2512
3012	4822 051 20471	470Ω 5% 0.1W
3013	4822 051 20561	560Ω 5% 0.1W
3014	2322 762 60102	1kΩ 5% 2512
3015	2322 762 60102	1kΩ 5% 2512
3016	3198 031 04720	4.7kΩ 5% 0402
3017	3198 031 04720	4.7kΩ 5% 0402
3018	3198 031 04720	4.7kΩ 5% 0402
3019	3198 031 04720	4.7kΩ 5% 0402
3020	3198 031 04720	4.7kΩ 5% 0402
3022	4822 117 13545	100Ω 1% 0402
3023	4822 117 13545	100Ω 1% 0402
3024	3198 031 04720	4.7kΩ 5% 0402
3025	3198 031 04720	4.7kΩ 5% 0402
3028	4822 117 13606	10kΩ 5% 0.01W 0402
3029	3198 031 04720	4.7kΩ 5% 0402
3030	3198 031 04720	4.7kΩ 5% 0402
3031	3198 031 04720	4.7kΩ 5% 0402
3042	4822 053 20105	1MΩ 5% 0.25W
3999	4822 051 30103	10kΩ 5% 0.062W

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5002	2422 536 00923	22µH 10% LHL10
5007	2422 536 00923	22µH 10% LHL10
5008	2422 536 00923	22µH 10% LHL10
5014▲	3104 308 21271	Transf. BD21416-00
5015▲	3104 308 21271	Transf. BD21416-00
5016▲	3104 308 21271	Transf. BD21416-00

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6000	4822 130 11397	BAS316
6001	4822 130 11397	BAS316
6002	4822 130 11397	BAS316
6003	4822 130 11397	BAS316
6004	4822 130 11397	BAS316
6005	4822 130 11397	BAS316
6006	4822 130 11152	UDZ18B
6007	4822 130 11152	UDZ18B
6008	4822 130 11152	UDZ18B
6009	4822 130 11152	UDZ18B
6010	4822 130 11152	UDZ18B
6011	4822 130 11152	UDZ18B

▭

7001	9352 711 46118	P87LPC760BDH
7002	9322 202 58668	LD1117DT50
7009	3198 010 42310	BC847BW
7010	3198 010 42310	BC847BW
7011	3198 010 42310	BC847BW
7015	9322 214 20668	SI4946EY
7016	9322 214 20668	SI4946EY
7017	9322 214 20668	SI4946EY
7018	3198 010 42310	BC847BW
7019	3198 010 42310	BC847BW
7020	3198 010 42310	BC847BW

Small Signal Board [B]

Various

1A33▲	2422 086 11092	Fuse 500mA 50V F SMD
1A51	2422 549 44369	SAW 38.9MHz K9656L
1A52	2422 549 44372	SAW 38.9MHz K3953L
1B01	2422 033 00018	Connector 19p f
1B30	2422 549 00146	Line filter 20V 3A
1B31	2422 549 00146	Line filter 20V 3A
1B32	2422 549 00146	Line filter 20V 3A
1B33	2422 549 00146	Line filter 20V 3A
1B34	2422 549 00146	Line filter 20V 3A
1B35	2422 549 00146	Line filter 20V 3A
1B36	2422 549 00146	Line filter 20V 3A
1B37	2422 549 00146	Line filter 20V 3A
1C33▲	2422 086 11092	Fuse 500mA 50V F SMD
1C51	2422 549 44369	SAW 38.9MHz K9656L
1C52	2422 549 44372	SAW 38.9MHz K3953L
1E35	2422 025 17601	Connector 40p f
1G02	2422 025 17274	Connector 10p m
1G50	2422 025 18427	Connector 31p f
1H00	2422 543 01397	Xtal 27MHz 18pF
1H01	2422 025 17775	Socket USB 4p f
1I00	2422 026 05753	Socket CINCH H 6p f 2L3
1I10	2422 026 05393	Socket 2p f
1LA0	4822 242 11006	16MHz DSX840GA
1M01	2422 025 10768	Connector 3p m
1M03	2422 025 10771	Connector 10p m
1M15	4822 267 10459	Connector 3p
1M20	2422 025 10772	Connector 12p m
1M36	2422 025 10655	Connector 11p m
1M46	2422 025 10655	Connector 11p m
1M49	2422 025 18884	Connector 4p m
1M52	2422 025 10769	Connector 9p m
1N00	2422 543 01095	Res. 12MHz DSX840
1O00	2422 543 01398	Xtl 25MHz 18pF DSX840
1O10	2422 025 18056	Jack 8p Ethernet
1P00	2422 025 18133	Socket SCART
1T03	3139 147 22181	Tuner UV1318ST/AIHN-3
1U01▲	2422 086 00623	Fuse 3A T 125V
1U04▲	2422 086 00623	Fuse 3A T 125V
1W02	3139 147 22161	Tuner UV1318S/AIHN-3
8192	3104 311 05362	Wire phono M/120/IEC

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2A01	2238 787 15641	22nF 5% 16V 0402
2A03	2238 787 15641	22nF 5% 16V 0402
2A04	2238 787 15641	22nF 5% 16V 0402
2A05	2238 787 15641	22nF 5% 16V 0402
2A06	2238 787 15641	22nF 5% 16V 0402
2A07	2238 787 15641	22nF 5% 16V 0402
2A08	2238 787 15641	22nF 5% 16V 0402
2A09	2238 787 15641	22nF 5% 16V 0402
2A10	2238 787 15641	22nF 5% 16V 0402
2A12	2238 787 15641	22nF 5% 16V 0402
2A13	2238 787 15641	22nF 5% 16V 0402
2A15	2238 787 15641	22nF 5% 16V 0402
2A16	2238 787 15641	22nF 5% 16V 0402
2A17	2238 787 15641	22nF 5% 16V 0402
2A18	2238 787 15641	22nF 5% 16V 0402
2A19	2238 787 15641	22nF 5% 16V 0402
2A20	2238 787 15641	22nF 5% 16V 0402
2A21	2020 004 90283	10µF 20% 10V 1206
2A22	2238 586 59812	100nF 20% 50V 0603
2A23	2238 586 59812	100nF 20% 50V 0603
2A25	4822 124 23002	10µF 16V
2A27	2238 586 59812	100nF 20% 50V 0603
2A28	2238 586 59812	100nF 20% 50V 0603
2A29	4822 124 23002	10µF 16V
2A30	2022 552 05679	1µF 10% 16V 0805
2A31	2020 552 96628	10nF 10% 16V 0402
2A32	2020 552 96628	10nF 10% 16V 0402
2A33	2020 552 96628	10nF 10% 16V 0402
2A35	2238 586 59812	100nF 20% 50V 0603
2A36	2022 552 05679	1µF 10% 16V 0805
2A39	2238 586 59812	100nF 20% 50V 0603
2A40	2238 586 59812	100nF 20% 50V 0603
2A41	2020 552 96628	10nF 10% 16V 0402
2A42	4822 126 14491	2.2µF 10V 0805
2A44	2238 586 59812	100nF 20% 50V 0603
2A45	4822 124 23002	10µF 16V
2A52	4822 124 23002	10µF 16V
2A53	2020 552 96628	10nF 10% 16V 0402
2A54	2020 552 96618	1nF 10% 50V 0402
2A55	2238 586 59812	100nF 20% 50V 0603
2A56	2022 552 05679	1µF 10% 16V 0805
2A57	2020 552 96628	10nF 10% 16V 0402
2A59	3198 032 55130	10µF 20% 20V
2A60	2020 552 96628	10nF 10% 16V 0402
2A61	2022 552 05679	1µF 10% 16V 0805
2A63	2238 586 59812	100nF 20% 50V 0603
2A64	2020 004 00003	330µF 20% 6.3V
2A65	2020 552 96628	10nF 10% 16V 0402
2A66	3198 032 55130	10µF 20% 20V
2A67	2022 552 05679	1µF 10% 16V 0805
2A68	2022 552 05679	1µF 10% 16V 0805
2A69	2238 586 59812	100nF 20% 50V 0603
2A70	2020 552 96628	10nF 10% 16V 0402
2A71	2020 552 96628	10nF 10% 16V 0402
2A74	2020 552 96628	10nF 10% 16V 0402
2A81	2022 552 05679	1µF 10% 16V 0805
2A82	2238 586 59812	100nF 20% 50V 0603
2A84	2022 552 05679	1µF 10% 16V 0805
2A85	4822 126 14324	33pF 5% 50V 0402
2A88	2238 586 59812	100nF 20% 50V 0603
2A89	2238 586 59812	100nF 20% 50V 0603
2A90	2022 552 05679	1µF 10% 16V 0805
2A91	4822 126 14324	33pF 5% 50V 0402
2A92	4822 126 14324	33pF 5% 50V 0402
2A93	2238 586 59812	100nF 20% 50V 0603
2A96	2022 552 05679	1µF 10% 16V 0805
2A97	2022 552 05679	1µF 10% 16V 0805
2A98	4822 126 14324	33pF 5% 50V 0402
2A99	4822 126 14324	33pF 5% 50V 0402
2B00	2238 586 59812	100nF 20% 50V 0603
2B01	2238 586 59812	100nF 20% 50V 0603
2B02	2238 586 59812	100nF 20% 50V 0603
2B03	2238 586 59812	100nF 20% 50V 0603
2B04	2238 586 59812	100nF 20% 50V 0603
2B05	2238 586 59812	100nF 20% 50V 0603
2B06	2238 586 59812	100nF 20% 50V 0603
2B07	2238 586 59812	100nF 20% 50V 0603
2B10	3198 034 01580	1.5pF 1% 50V 0402
2B12	3198 034 01580	1.5pF 1% 50V 0402
2B13	3198 034 01580	1.5pF 1% 50V 0402
2B15	3198 034 01580	1.5pF 1% 50V 0402
2B16	3198 034 01580	1.5pF 1% 50V 0402
2B18	3198 034 01580	1.5pF 1% 50V 0402
2B20	2020 552 96628	10nF 10% 16V 0402
2B21	2020 552 96628	10nF 10% 16V 0402
2B22	2020 552 96628	10nF 10% 16V 0402
2B23	2020 552 96628	10nF 10% 16V 0402
2B24	2020 552 96628	10nF 10% 16V 0402
2B25	2020 552 96628	10nF 10% 16V 0402
2B26	2020 552 96628	10nF 10% 16V 0402
2B27	2020 552 96628	10nF 10% 16V 0402
2B28	2020 552 96628	10nF 10% 16V 0402
2B29	2020 552 96628	10nF 10% 16V 0402
2B30	2020 552 96628	10nF 10% 16V 0402
2B34	2020 552 96628	10nF 10% 16V 0402
2B35	2020 552 96628	10nF 10% 16V 0402
2B36	2020 552 96628	10nF 10% 16V 0402
2B38	2022 552 05679	1µF 10% 16V 0805
2B39	4822 124 81058	47µF 20% 4V
2B40	2238 586 59812	100nF 20% 50V 0603
2B41	2238 586 59812	100nF 20% 50V 0603
2B42	2238 586 59812	100nF 20% 50V 0603
2B43	2238 586 59812	100nF 20% 50V 0603
2B44	2238 586 59812	100nF 20% 50V 0603
2B45	2238 586 59812	100nF 20% 50V 0603
2B46	2238 586 59812	100nF 20% 50V 0603
2B47	2238 586 59812	100nF 20% 50V 0603
2B48	2238 586 59812	100nF 20% 50V 0603
2B50	4822 124 81058	47µF 20% 4V
2B52	2238 586 59812	100nF 20% 50V 0603
2B54	2238 586 59812	100nF 20% 50V 0603
2B57	2238 586 59812	100nF 20% 50V 0603
2B61	2238 586 59812	100nF 20% 50V 0603
2B62	2238 586 59812	100nF 20% 50V 0603
2B63	2238 586 59812	100nF 20% 50V 0603
2B64	2238 586 59812	100nF 20% 50V 0603
2B66	2238 586 59812	100nF 20% 50V 0603
2B67	2022 009 00703	330µF 20% 6.3V
2B68	4822 124 81058	47µF 20% 4V
2B69	2238 586 59812	100nF 20% 50V 0603
2B70	4822 124 81058	47µF 20% 4V
2B71	4822 124 81058	47µF 20% 4V
2B72	2238 586 59812	100nF 20% 50V 0603
2B73	4822 124 81058	47µF 20% 4V
2B74	4822 124 81058	47µF 20% 4V
2B75	4822 124 81058	47µF 20% 4V
2B76	4822 124 81058	47µF 20% 4V
2B77	2238 586 59812	100nF 20% 50V 0603
2B78	2238 586 59812	100nF 20% 50V 0603
2B79	2238 586 59812	100nF 20% 50V 0603
2B80	2238 586 59812	100nF 20% 50V 0603
2B81	2238 586 59812	100nF 20% 50V 0603
2B85	2238 586 59812	100nF 20% 50V 0603
2B86	2238 586 59812	100nF 20% 50V 0603
2B88	2238 586 59812	100nF 20% 50V 0603
2B89	2238 586 59812	100nF 20% 50V 0603
2B90	2238 586 59812	100nF 20% 50V 0603
2B91	4822 124 81058	47µF 20% 4V
2B92	2238 586 59812	100nF 20% 50V 0603
2B93	2238 586 59812	100nF 20% 50V 0603
2B94	2238 586 59812	100nF 20% 50V 0603
2BA0	2020 552 96628	10nF 10% 16V 0402
2BA1	3198 035 14720	4.7nF 5% 25V 0402
2BA2	2020 552 96628	10nF 10% 16V 0402
2BA3	3198 035 14720	4.7nF 5% 25V 0402
2BB0	2238 869 15109	10pF 5% 50V 0402
2BB2	2238 869 15109	10pF 5% 50V 0402
2BB4	2238 869 15109	10pF 5% 50V 0402
2BB5	2238 869 15109	10pF 5% 50V 0402
2BB6	2238 869 15109	10pF 5% 50V 0402
2BB8	2238 869 15109	10pF 5% 50V 0402
2C01	2238 787 15641	22nF 5% 16V 0402
2C03	2238 787 15641	22nF 5% 16V 0402
2C04	2238 787 15641	22nF 5% 16V 0402
2C05	2238 787 15641	22nF 5% 16V 0402
2C06	2238 787 15641	22nF 5% 16V 0402
2C07	2238 787 15641	22nF 5% 16V 0402
2C08	2238 787 15641	22nF 5% 16V 0402
2C09	2238 787 15641	22nF 5% 16V 0402
2C12	2238 787 15641	22nF 5% 16V 0402
2C13	2238 787 15641	22nF 5% 16V 0402
2C15	2238 787 15641	22nF 5% 16V 0402
2C16	2238 787 15641	22nF 5% 16V 0402
2C17	2238 787 15641	22nF 5% 16V 0402
2C18	2238 787 15641	22nF 5% 16V 0402
2C19	2238 787 15641	22nF 5% 16V 0402
2C20	2238 787 15641	22nF 5% 16V 0402
2C21	2020 004 90283	10µF 20% 10V 1206
2C22	2238 586 59812	100nF 20% 50V 0603
2C23	2238 586 59812	100nF 20% 50V 0603
2C25	2020 004 90283	10µF 20% 10V 1206
2C27	2238 586 59812	100nF 20% 50V 0603
2C28	2238 586 59812	100nF 20% 50V 0603
2C31	2238 586 59812	100nF 20% 50V 0603
2C33	2022 552 05679	1µF 10% 16V 0805
2C34	2238 586 59812	100nF 20% 50V 0603
2C35	2238 586 59812	100nF 20% 50V 0603
2C36	2022 552 05679	1µF 10% 16V 0805
2C37	2022 552 05679	1µF 10% 16V 0805
2C38	2022 552 05679	1µF 10% 16V 0805
2C39	2238 586 59812	100nF 20% 50V 0603
2C40	2238 586 59812	100nF 20% 50V 0603
2C41	2020 552 96618	1nF 10% 50V 0402
2C42	4822 126 14491	2.2µF 10V 0805
2C44	2238 586 59812	100nF 20% 50V 0603
2C45	4822 124 23002	10µF 16V
2C46	2022 552 05679	1µF 10% 16V 0805
2C47	2238 586 59812	100nF 20% 50V 0603
2C48	2022 552 05679	1µF 10% 16V 0805
2C49	2022 552 05679	1µF 10% 16V 0805
2C52	4822 124 23002	10µF 16V
2C53	2020 552 96628	10nF 10% 16V 0402
2C55	2238 586 59812	100nF 20% 50V 0603
2C56	2022 552 05679	1µF 10% 16V 0805
2C57	2020 552 96628	10nF 10% 16V 0402
2C59	4822 124 23002	10µF 16V
2C60	2020 552 96628	10nF 10% 16V 0402
2C61	2020 552 96628	10nF 10% 16V 0402
2C62	2238 787 15641	22nF 5% 16V 0402
2C63	2238 586 59812	100nF 20% 50V 0603
2C64	2020 004 00003	330µF 20% 6.3V
2C65	2020 552 96628	10nF 10% 16V 0402
2C66	4822 124 23002	10µF 16V
2C67	2022 552 05679	1µF 10% 16V 0805
2C68	2022 552 05679	1µF 10% 16V 0805
2C69	2238 586 59812	100nF 20% 50V 0603
2C70	2020 552 96628	10nF 10% 16V 0402
2C72	2020 552 96618	1nF 10% 50V 0402
2C73	4822 124 23002	10µF 16V
2C74	2020 552 96628	10nF 10% 16V 0402
2C78	2022 552 05679	1µF 10% 16V 0805
2C82	2020 552 96628	10nF 10% 16V 0402
2C99	2022 552 05679	1µF 10% 16V 0805
2E00	2238 869 15101	100pF 5% 50V 0402
2E01	2238 869 15101	100pF 5% 50V 0402
2E02	2238 869 15101	100pF 5% 50V 0402
2E03	2238 869 15101	100pF 5% 50V 0402
2E04	2238 869 15101	100pF 5% 50V 0402
2E05	2238 869 15101	100pF 5% 50V 0402
2E06	2238 869 15101	100pF 5% 50V 0402
2E08	2238 586 59812	100nF 20% 50V 0603
2E12	2238 869 15101	100pF 5% 50V 0402
2E13	2022 552 05679	1µF 10% 16V 0805
2E14	2022 552 05679	1µF 10% 16V 0805
2E16	2238 586 59812	100nF 20% 50V 0603
2E17	2238 586 59812	100nF 20% 50V 0603
2E19	2020 004 90283	10µF 20% 10V 1206
2E20	2020 552 96618	1nF 10% 50V 0402
2E25	2238 869 15101	100pF 5% 50V 0402
2E26	2238 869 15101	100pF 5% 50V 0402
2E30	2238 869 15101	100pF 5% 50V 0402
2E31	2238 869 15101	100pF 5% 50V 0402

2E53	2238 869 15101	100pF 5% 50V 0402
2E54	2238 869 15101	100pF 5% 50V 0402
2E56	2238 869 15101	100pF 5% 50V 0402
2E58	2238 869 15101	100pF 5% 50V 0402
2E60	2238 869 15101	100pF 5% 50V 0402
2E62	2238 869 15101	100pF 5% 50V 0402
2E64	2238 869 15101	100pF 5% 50V 0402
2E70	2238 869 15109	10pF 5% 50V 0402
2E72	2238 787 15641	22nF 5% 16V 0402
2E74	2238 869 15101	100pF 5% 50V 0402
2E76	2238 869 15101	100pF 5% 50V 0402
2E78	2238 869 15101	100pF 5% 50V 0402
2E80	2238 869 15101	100pF 5% 50V 0402
2E90	2238 869 15101	100pF 5% 50V 0402
2E92	2238 869 15101	100pF 5% 50V 0402
2E94	2238 869 15109	10pF 5% 50V 0402
2F12	2238 586 59812	100nF 20% 50V 0603
2F13	2238 586 59812	100nF 20% 50V 0603
2F14	2238 586 59812	100nF 20% 50V 0603
2F15	2238 586 59812	100nF 20% 50V 0603
2F17	2238 586 59812	100nF 20% 50V 0603
2F18	2238 586 59812	100nF 20% 50V 0603
2F19	2238 586 59812	100nF 20% 50V 0603
2F20	2238 586 59812	100nF 20% 50V 0603
2F21	2238 586 59812	100nF 20% 50V 0603
2F23	2238 586 59812	100nF 20% 50V 0603
2F24	2238 586 59812	100nF 20% 50V 0603
2F25	2020 552 96628	10nF 10% 16V 0402
2F26	2022 552 05679	1µF 10% 16V 0805
2F27	2020 552 96628	10nF 10% 16V 0402
2F28	2022 552 05679	1µF 10% 16V 0805
2F31	2238 586 59812	100nF 20% 50V 0603
2F32	2238 586 59812	100nF 20% 50V 0603
2F33	2238 586 59812	100nF 20% 50V 0603
2F34	2238 586 59812	100nF 20% 50V 0603
2F35	2238 586 59812	100nF 20% 50V 0603
2F36	2022 552 05679	1µF 10% 16V 0805
2F37	2022 552 05679	1µF 10% 16V 0805
2F38	2022 552 05679	1µF 10% 16V 0805
2F39	2238 586 59812	100nF 20% 50V 0603
2F40	2022 552 05679	1µF 10% 16V 0805
2F62	2022 552 05679	1µF 10% 16V 0805
2G00	2020 552 96628	10nF 10% 16V 0402
2G01	2020 552 96628	10nF 10% 16V 0402
2G02	2020 552 96628	10nF 10% 16V 0402
2G03	2020 552 96628	10nF 10% 16V 0402
2G04	2238 586 59812	100nF 20% 50V 0603
2G05	2022 552 05679	1µF 10% 16V 0805
2G06	2238 586 59812	100nF 20% 50V 0603
2G07	2238 586 59812	100nF 20% 50V 0603
2G08	2238 586 59812	100nF 20% 50V 0603
2G09	2238 586 59812	100nF 20% 50V 0603
2G10	2238 586 59812	100nF 20% 50V 0603
2G11	4822 124 81058	47µF 20% 4V
2G12	2238 586 59812	100nF 20% 50V 0603
2G13	2238 586 59812	100nF 20% 50V 0603
2G14	2238 586 59812	100nF 20% 50V 0603
2G15	2020 552 96628	10nF 10% 16V 0402
2G16	4822 124 81058	47µF 20% 4V
2G17	2238 586 59812	100nF 20% 50V 0603
2G18	2238 586 59812	100nF 20% 50V 0603
2G30	2020 552 96628	10nF 10% 16V 0402
2G31	2022 552 05679	1µF 10% 16V 0805
2G32	2020 552 96628	10nF 10% 16V 0402
2G33	2020 552 96628	10nF 10% 16V 0402
2G34	2020 552 96628	10nF 10% 16V 0402
2G35	2238 586 59812	100nF 20% 50V 0603
2G36	2238 586 59812	100nF 20% 50V 0603
2G37	2238 586 59812	100nF 20% 50V 0603
2G38	2238 586 59812	100nF 20% 50V 0603
2G39	2020 552 96628	10nF 10% 16V 0402
2G42	2238 869 15109	10pF 5% 50V 0402
2G50	2020 552 96628	10nF 10% 16V 0402
2G51	2022 552 05679	1µF 10% 16V 0805
2G52	2238 586 59812	100nF 20% 50V 0603
2G53	2238 586 59812	100nF 20% 50V 0603
2G54	4822 124 81058	47µF 20% 4V
2G55	2238 586 59812	100nF 20% 50V 0603
2G56	2022 552 05679	1µF 10% 16V 0805
2G57	2238 586 59812	100nF 20% 50V 0603
2G58	2020 552 96618	1nF 10% 50V 0402
2G59	2022 552 05679	1µF 10% 16V 0805
2G73	3198 035 04710	470pF 50V 0402
2G74	3198 035 04710	470pF 50V 0402
2G80	2238 586 59812	100nF 20% 50V 0603
2G81	2238 586 59812	100nF 20% 50V 0603
2G82	2238 586 59812	100nF 20% 50V 0603
2G83	2238 586 59812	100nF 20% 50V 0603
2G84	2238 586 59812	100nF 20% 50V 0603
2G85	2238 586 59812	100nF 20% 50V 0603
2G86	2238 586 59812	100nF 20% 50V 0603
2G87	2238 586 59812	100nF 20% 50V 0603
2G88	2238 586 59812	100nF 20% 50V 0603
2G89	2238 586 59812	100nF 20% 50V 0603
2GA1	2238 586 59812	100nF 20% 50V 0603
2GA2	2022 552 05679	1µF 10% 16V 0805
2GA3	2238 586 59812	100nF 20% 50V 0603
2GB4	2238 869 15109	10pF 5% 50V 0402
2GB5	2238 869 15109	10pF 5% 50V 0402
2GB6	2238 869 15109	10pF 5% 50V 0402
2GB7	2238 869 15109	10pF 5% 50V 0402
2GB8	2238 869 15109	10pF 5% 50V 0402
2GB9	2238 869 15109	10pF 5% 50V 0402
2GC0	2238 869 15109	10pF 5% 50V 0402
2GC1	2238 869 15109	10pF 5% 50V 0402
2GC2	2238 869 15109	10pF 5% 50V 0402
2GC3	2238 869 15109	10pF 5% 50V 0402
2GC4	2238 869 15109	10pF 5% 50V 0402
2GC5	2238 869 15109	10pF 5% 50V 0402
2GC6	2238 869 15109	10pF 5% 50V 0402
2GC7	2238 869 15109	10pF 5% 50V 0402
2GC8	2238 869 15109	10pF 5% 50V 0402
2GC9	2238 869 15109	10pF 5% 50V 0402
2GD0	2238 869 15109	10pF 5% 50V 0402
2GD1	2238 869 15109	10pF 5% 50V 0402
2GD2	2238 869 15109	10pF 5% 50V 0402
2H01	2238 586 59812	100nF 20% 50V 0603
2H02	2238 586 59812	100nF 20% 50V 0603
2H03	2238 586 59812	100nF 20% 50V 0603
2H08	3198 034 02790	47pF 1% 50V 0402
2H09	3198 034 02790	47pF 1% 50V 0402
2H12	3198 034 02790	47pF 1% 50V 0402
2I02	2238 586 59812	100nF 20% 50V 0603
2I05	2238 869 15101	100pF 5% 50V 0402
2I06	2238 869 15101	100pF 5% 50V 0402
2I20	2238 586 59812	100nF 20% 50V 0603
2I35	2238 586 59812	100nF 20% 50V 0603
2I36	2238 586 59812	100nF 20% 50V 0603
2I37	2238 586 59812	100nF 20% 50V 0603
2I38	2238 586 59812	100nF 20% 50V 0603
2I58	2238 586 59812	100nF 20% 50V 0603
2I59	4822 124 12108	100µF 20% 4V
2I61	2238 586 59812	100nF 20% 50V 0603
2I91	2238 586 59812	100nF 20% 50V 0603
2I92	2238 586 59812	100nF 20% 50V 0603
2I93	2022 552 05679	1µF 10% 16V 0805
2I94	2238 586 59812	100nF 20% 50V 0603
2I95	4822 124 23002	10µF 16V
2I98	2022 552 05679	1µF 10% 16V 0805
2J00	4822 124 12108	100µF 20% 4V
2J01	2238 586 59812	100nF 20% 50V 0603
2J02	2238 869 15101	100pF 5% 50V 0402
2J03	2238 586 59812	100nF 20% 50V 0603
2J05	2238 869 15101	100pF 5% 50V 0402
2J06	2238 586 59812	100nF 20% 50V 0603
2J08	2238 586 59812	100nF 20% 50V 0603
2J10	2238 586 59812	100nF 20% 50V 0603
2J12	2238 869 15101	100pF 5% 50V 0402
2J13	2238 586 59812	100nF 20% 50V 0603
2J14	3198 035 03320	3.3nF 5% 50V 0402
2J15	2238 869 15101	100pF 5% 50V 0402
2J16	2238 586 59812	100nF 20% 50V 0603
2J17	3198 035 03320	3.3nF 5% 50V 0402
2J18	2238 586 59812	100nF 20% 50V 0603
2J20	2238 586 59812	100nF 20% 50V 0603
2J22	3198 035 03320	3.3nF 5% 50V 0402
2J23	3198 035 03320	3.3nF 5% 50V 0402
2J24	3198 035 03320	3.3nF 5% 50V 0402
2J25	3198 035 03320	3.3nF 5% 50V 0402
2J26	3198 035 03320	3.3nF 5% 50V 0402
2J27	3198 035 03320	3.3nF 5% 50V 0402
2J28	3198 035 03320	3.3nF 5% 50V 0402
2K38	2022 552 05679	1µF 10% 16V 0805
2K39	2022 552 05679	1µF 10% 16V 0805
2K40	2238 586 59812	100nF 20% 50V 0603
2K41	2238 586 59812	100nF 20% 50V 0603
2K42	3198 032 47170	47µF 20% 16V
2K43	2238 586 59812	100nF 20% 50V 0603
2K45	2238 586 59812	100nF 20% 50V 0603
2K58	2022 552 05679	1µF 10% 16V 0805
2K60	2022 552 05679	1µF 10% 16V 0805
2K61	2022 552 05679	1µF 10% 16V 0805
2K63	2022 552 05679	1µF 10% 16V 0805
2K67	2022 552 05679	1µF 10% 16V 0805
2K68	2022 552 05679	1µF 10% 16V 0805
2K69	2022 552 05679	1µF 10% 16V 0805
2K70	2022 552 05679	1µF 10% 16V 0805
2K71	2022 552 05679	1µF 10% 16V 0805
2K72	2022 552 05679	1µF 10% 16V 0805
2K73	2022 552 05679	1µF 10% 16V 0805
2K74	2022 552 05679	1µF 10% 16V 0805
2K75	2022 552 05679	1µF 10% 16V 0805
2K76	2022 552 05679	1µF 10% 16V 0805
2K77	2022 552 05679	1µF 10% 16V 0805
2L00	2238 586 59812	100nF 20% 50V 0603
2L01	2238 586 59812	100nF 20% 50V 0603
2L02	2238 869 15101	100pF 5% 50V 0402
2L03	2238 586 59812	100nF 20% 50V 0603
2L05	2020 552 96618	1nF 10% 50V 0402
2L09	3198 034 01080	1pF 1% 50V 0402
2L10	2022 552 05679	1µF 10% 16V 0805
2L11	2022 552 05679	1µF 10% 16V 0805
2L12	2022 552 05679	1µF 10% 16V 0805
2L13	2022 552 05679	1µF 10% 16V 0805
2L14	2238 586 59812	100nF 20% 50V 0603
2L15	2238 586 59812	100nF 20% 50V 0603
2L16	2020 552 96623	2.2nF 10% 50V 0402
2L17	2020 552 96623	2.2nF 10% 50V 0402
2L18	2020 552 96623	2.2nF 10% 50V 0402
2L19	2020 552 96623	2.2nF 10% 50V 0402
2L20	2020 552 96623	2.2nF 10% 50V 0402
2L21	2020 552 96623	2.2nF 10% 50V 0402
2L22	2020 552 96623	2.2nF 10% 50V 0402
2L23	2020 552 96623	2.2nF 10% 50V 0402
2L40	2238 869 15101	100pF 5% 50V 0402
2L41	2238 787 15641	22nF 5% 16V 0402
2L47	2238 869 15101	100pF 5% 50V 0402
2L48	2238 869 15101	100pF 5% 50V 0402
2L50	2238 586 59812	100nF 20% 50V 0603
2L51	2238 586 59812	100nF 20% 50V 0603
2L52	2238 586 59812	100nF 20% 50V 0603
2L53	2238 586 59812	100nF 20% 50V 0603
2L54	2238 586 59812	100nF 20% 50V 0603
2L56	2238 586 59812	100nF 20% 50V 0603
2L57	2238 586 59812	100nF 20% 50V 0603
2L58	2238 869 15101	100pF 5% 50V 0402
2L59	2238 586 59812	100nF 20% 50V 0603
2L60	2238 586 59812	100nF 20% 50V 0603
2L61	2020 552 96618	1nF 10% 50V 0402
2L62	2238 586 59812	100nF 20% 50V 0603
2L63	2022 552 05679	1µF 10% 16V 0805
2L64	2022 552 05679	1µF 10% 16V 0805
2L65	2022 552 05679	1µF 10% 16V 0805
2L66	2022 552 05679	1µF 10% 16V 0805
2LA0	4822 126 14519	22pF 5% 50V 0402
2LA1	4822 126 14519	22pF 5% 50V 0402
2LA4	2238 586 59812	100nF 20% 50V 0603
2LA5	2022 552 05679	1µF 10% 16V 0805
2LB0	2238 586 59812	100nF 20% 50V 0603
2LB1	2238 586 59812	100nF 20% 50V 0603
2LB2	2020 552 96628	10nF 10% 16V 0402
2LN0	4822 124 12108	100µF 20% 4V
2LN1	2022 552 05679	1µF 10% 16V 0805
2LN2	2022 552 05679	1µF 10% 16V 0805
2LN3	2238 586 59812	100nF 20% 50V 0603
2LN4	2238 586 59812	100nF 20% 50V 0603
2LN5	2238 586 59812	100nF 20% 50V 0603
2LN6	2238 586 59812	100nF 20% 50V 0603
2LN7	2020 552 96628	10nF 10% 16V 0402
2LN8	2020 552 96628	10nF 10% 16V 0402
2LN9	4822 124 12108	100µF 20% 4V
2LP0	2020 552 96618	1nF 10% 50V 0402
2LP1	2020 552 96618	1nF 10% 50V 0402
2LP2	2238 586 59812	100nF 20% 50V 0603
2LP3	2238 586 59812	100nF 20% 50V 0603
2LP4	2020 552 96628	10nF 10% 16V 0402
2LP5	2020 552 96628	10nF 10% 16V 0402
2LP6	2020 552 96618	1nF 10% 50V 0402
2LP7	2020 552 96618	1nF 10% 50V 0402
2LP8	2020 552 96618	1nF 10% 50V 0402
2LP9	2020 552 96618	1nF 10% 50V 0402
2LR1	2020 552 96628	10nF 10% 16V 0402
2LR2	2020 552 96618	1nF 10% 50V 0402
2LR3	2020 552 96628	10nF 10% 16V 0402
2LR4	2020 552 96618	1nF 10% 50V 0402
2LR5	2020 552 96628	10nF 10% 16V 0402
2LR6	2020 552 96618	1nF 10% 50V 0402
2LR7	2020 552 96618	1nF 10% 50V 0402
2LR8	2238 869 15101	100pF 5% 50V 0402
2LR9	2020 552 96628	10nF 10% 16V 0402
2LS0	2020 552 96618	1nF 10% 50V 0402
2LS1	2020 552 96618	1nF 10% 50V 0402
2LS2	5322 126 11578	1nF 10% 50V 0603
2LS4	2022 552 05679	1µF 10% 16V 0805
2LS5	2238 586 59812	100nF 20% 50V 0603
2LS6	2238 586 59812	100nF 20% 50V 0603
2LS7	4822 124 12108	100µF 20% 4V
2LS8	2020 552 96618	1nF 10% 50V 0402
2LS9	2238 869 15101	100pF 5% 50V 0402
2LT0	2238 586 59812	100nF 20% 50V 0603
2LT1	2020 552 96618	1nF 10% 50V 0402
2LT2	2238 869 15101	100pF 5% 50V 0402
2LT3	2020 552 96618	1nF 10% 50V 0402
2LT4	2020 552 96618	1nF 10% 50V 0402
2LT5	2238 869 15101	100pF 5% 50V 0402
2LT6	2238 586 59812	100nF 20% 50V 0603
2LT7	2020 552 96618	1nF 10% 50V 0402
2LT8	2020 552 96618	1nF 10% 50V 0402
2LT9	2020 552 96618	1nF 10% 50V 0402
2LU0	2020 552 96618	1nF 10% 50V 0402
2LU2	2020 552 96628	10nF 10% 16V 0402
2LU3	2238 869 15101	100pF 5% 50V 0402

2LU4	2020 552 96618	1nF 10% 50V 0402
2LU5	2020 552 96618	1nF 10% 50V 0402
2M00	2238 869 15101	100pF 5% 50V 0402
2M01	2238 869 15101	100pF 5% 50V 0402
2M02	2238 869 15101	100pF 5% 50V 0402
2M03	2238 869 15101	100pF 5% 50V 0402
2M04	2238 869 15101	100pF 5% 50V 0402
2M05	2238 869 15101	100pF 5% 50V 0402
2M06	2238 869 15101	100pF 5% 50V 0402
2M10	2238 869 15101	100pF 5% 50V 0402
2M11	2238 869 15101	100pF 5% 50V 0402
2M12	2238 869 15101	100pF 5% 50V 0402
2M13	2238 869 15101	100pF 5% 50V 0402
2M14	2238 869 15101	100pF 5% 50V 0402
2M15	2238 869 15101	100pF 5% 50V 0402
2M16	4822 117 13605	Jumper 0402
2M18	2238 869 15101	100pF 5% 50V 0402
2M19	2238 869 15101	100pF 5% 50V 0402
2M20	2238 869 15101	100pF 5% 50V 0402
2M21	2238 869 15101	100pF 5% 50V 0402
2M22	2020 552 96628	10nF 10% 16V 0402
2M29	2238 869 15101	100pF 5% 50V 0402
2M30	2238 869 15101	100pF 5% 50V 0402
2M31	2238 869 15101	100pF 5% 50V 0402
2M47	2238 869 15101	100pF 5% 50V 0402
2M49	2020 552 96628	10nF 10% 16V 0402
2M50	2238 869 15101	100pF 5% 50V 0402
2M51	2238 869 15101	100pF 5% 50V 0402
2M58	2238 869 15101	100pF 5% 50V 0402
2M62	2020 552 96628	10nF 10% 16V 0402
2M65	2238 869 15101	100pF 5% 50V 0402
2M66	2238 869 15101	100pF 5% 50V 0402
2M67	2238 869 15101	100pF 5% 50V 0402
2M68	2238 869 15101	100pF 5% 50V 0402
2M69	2238 869 15101	100pF 5% 50V 0402
2M70	2238 869 15101	100pF 5% 50V 0402
2M71	2238 869 15101	100pF 5% 50V 0402
2M72	2238 586 59812	100nF 20% 50V 0603
2M73	2238 586 59812	100nF 20% 50V 0603
2M74	2238 586 59812	100nF 20% 50V 0603
2M75	2238 586 59812	100nF 20% 50V 0603
2M76	2020 552 96618	1nF 10% 50V 0402
2M77	2238 869 15101	100pF 5% 50V 0402
2M78	2238 586 59812	100nF 20% 50V 0603
2M80	2238 586 59812	100nF 20% 50V 0603
2M81	2238 586 59812	100nF 20% 50V 0603
2M82	2238 586 59812	100nF 20% 50V 0603
2M83	2238 869 15101	100pF 5% 50V 0402
2M85	2020 552 96628	10nF 10% 16V 0402
2M92	2238 869 15101	100pF 5% 50V 0402
2M93	2238 869 15101	100pF 5% 50V 0402
2M95	2238 869 15101	100pF 5% 50V 0402
2N00	4822 126 14324	33pF 5% 50V 0402
2N01	4822 126 14324	33pF 5% 50V 0402
2N02	2238 586 59812	100nF 20% 50V 0603
2N03	2238 586 59812	100nF 20% 50V 0603
2N04	2238 586 59812	100nF 20% 50V 0603
2N05	2238 586 59812	100nF 20% 50V 0603
2N06	2238 586 59812	100nF 20% 50V 0603
2N07	2238 586 59812	100nF 20% 50V 0603
2N08	2238 586 59812	100nF 20% 50V 0603
2N10	2238 586 59812	100nF 20% 50V 0603
2N11	2238 586 59812	100nF 20% 50V 0603
2N12	4822 124 23002	10µF 16V
2O00	4822 126 14519	22pF 5% 50V 0402
2O01	4822 126 14519	22pF 5% 50V 0402
2O02	2238 586 59812	100nF 20% 50V 0603
2O03	4822 124 23002	10µF 16V
2O04	2020 552 96618	1nF 10% 50V 0402
2O05	2020 552 96618	1nF 10% 50V 0402
2O06	2020 552 96618	1nF 10% 50V 0402
2O07	2020 552 96618	1nF 10% 50V 0402
2O10	2022 552 05679	1µF 10% 16V 0805
2O11	2238 586 59812	100nF 20% 50V 0603
2O12	2020 552 00141	4.7µF 10% 6.3V 0805
2O13	2238 586 59812	100nF 20% 50V 0603
2O14	2238 586 59812	100nF 20% 50V 0603
2O15	2238 586 59812	100nF 20% 50V 0603
2O16	2238 586 59812	100nF 20% 50V 0603
2O17	2020 552 00141	4.7µF 10% 6.3V 0805
2O18	2238 586 59812	100nF 20% 50V 0603
2O19	2238 586 59812	100nF 20% 50V 0603
2O20	2238 586 59812	100nF 20% 50V 0603
2O21	2238 586 59812	100nF 20% 50V 0603
2O22	2238 586 59812	100nF 20% 50V 0603
2O23	2238 586 59812	100nF 20% 50V 0603
2O24	2238 586 59812	100nF 20% 50V 0603
2O25	2238 586 59812	100nF 20% 50V 0603
2O26	2238 586 59812	100nF 20% 50V 0603
2O27	2238 586 59812	100nF 20% 50V 0603
2O28	2238 586 59812	100nF 20% 50V 0603
2P10	2238 869 15101	100pF 5% 50V 0402
2P13	2238 869 15101	100pF 5% 50V 0402
2P14	2238 869 15101	100pF 5% 50V 0402
2P17	2238 869 15101	100pF 5% 50V 0402
2P18	3198 035 03310	330pF 5% 50V 0402
2P19	4822 124 23002	10µF 16V
2P20	4822 124 23002	10µF 16V
2Q00	4822 124 81058	47µF 20% 4V
2Q02	4822 124 81058	47µF 20% 4V
2Q04	2238 586 59812	100nF 20% 50V 0603
2Q05	2238 586 59812	100nF 20% 50V 0603
2Q06	2238 586 59812	100nF 20% 50V 0603
2Q07	2238 586 59812	100nF 20% 50V 0603
2Q08	2238 586 59812	100nF 20% 50V 0603
2Q09	2238 586 59812	100nF 20% 50V 0603
2Q10	2238 586 59812	100nF 20% 50V 0603
2Q11	2238 586 59812	100nF 20% 50V 0603
2Q12	2238 586 59812	100nF 20% 50V 0603
2Q13	2238 586 59812	100nF 20% 50V 0603
2Q14	2238 586 59812	100nF 20% 50V 0603
2Q15	2238 586 59812	100nF 20% 50V 0603
2Q16	2238 586 59812	100nF 20% 50V 0603
2Q17	2020 552 96618	1nF 10% 50V 0402
2Q18	2238 586 59812	100nF 20% 50V 0603
2Q19	2238 586 59812	100nF 20% 50V 0603
2Q20	4822 124 81058	47µF 20% 4V
2Q21	2020 552 96618	1nF 10% 50V 0402
2Q22	4822 124 81058	47µF 20% 4V
2Q24	2238 586 59812	100nF 20% 50V 0603
2Q25	3198 034 01290	12pF 1% 50V 0402
2Q26	2238 586 59812	100nF 20% 50V 0603
2Q27	2238 586 59812	100nF 20% 50V 0603
2Q28	2238 586 59812	100nF 20% 50V 0603
2Q29	2238 869 15101	100pF 5% 50V 0402
2Q30	2238 586 59812	100nF 20% 50V 0603
2Q31	2238 587 15619	560pF 10% 50V 0402
2Q32	2238 586 59812	100nF 20% 50V 0603
2Q33	2238 586 59812	100nF 20% 50V 0603
2Q34	2238 586 59812	100nF 20% 50V 0603
2Q35	2238 586 59812	100nF 20% 50V 0603
2Q37	2238 586 59812	100nF 20% 50V 0603
2Q38	2238 586 59812	100nF 20% 50V 0603
2Q39	2238 586 59812	100nF 20% 50V 0603
2Q40	4822 124 81058	47µF 20% 4V
2Q41	2238 869 15101	100pF 5% 50V 0402
2Q42	4822 124 81058	47µF 20% 4V
2Q44	2238 586 59812	100nF 20% 50V 0603
2Q45	5322 126 11583	10nF 10% 50V 0603
2Q46	2238 586 59812	100nF 20% 50V 0603
2Q47	5322 126 11583	10nF 10% 50V 0603
2Q48	2238 586 59812	100nF 20% 50V 0603
2Q49	2238 586 59812	100nF 20% 50V 0603
2Q50	5322 126 11583	10nF 10% 50V 0603
2Q51	5322 126 11583	10nF 10% 50V 0603
2Q52	5322 126 11583	10nF 10% 50V 0603
2Q53	5322 126 11583	10nF 10% 50V 0603
2Q54	5322 126 11583	10nF 10% 50V 0603
2Q55	5322 126 11583	10nF 10% 50V 0603
2Q56	2238 586 59812	100nF 20% 50V 0603
2Q57	5322 126 11583	10nF 10% 50V 0603
2Q58	5322 126 11583	10nF 10% 50V 0603
2Q59	2238 586 59812	100nF 20% 50V 0603
2Q63	2238 586 59812	100nF 20% 50V 0603
2Q64	2238 586 59812	100nF 20% 50V 0603
2Q65	2238 586 59812	100nF 20% 50V 0603
2Q66	2238 586 59812	100nF 20% 50V 0603
2Q71	2020 552 96637	10µF 10% 6.3V 0805
2Q72	2020 552 96637	10µF 10% 6.3V 0805
2Q73	2020 552 96637	10µF 10% 6.3V 0805
2Q74	2020 552 96637	10µF 10% 6.3V 0805
2Q75	2020 552 96628	10nF 10% 16V 0402
2Q76	2020 552 96628	10nF 10% 16V 0402
2Q77	2020 552 96628	10nF 10% 16V 0402
2Q78	2020 552 96628	10nF 10% 16V 0402
2Q79	2020 552 96628	10nF 10% 16V 0402
2Q80	2020 552 96628	10nF 10% 16V 0402
2Q81	2020 552 96628	10nF 10% 16V 0402
2Q82	2020 552 96628	10nF 10% 16V 0402
2Q83	2020 552 96628	10nF 10% 16V 0402
2Q84	2020 552 96628	10nF 10% 16V 0402
2Q85	2020 552 96628	10nF 10% 16V 0402
2Q86	2020 552 96628	10nF 10% 16V 0402
2Q87	2020 552 96628	10nF 10% 16V 0402
2Q88	2020 552 96628	10nF 10% 16V 0402
2Q91	2238 586 59812	100nF 20% 50V 0603
2Q92	2020 552 96618	1nF 10% 50V 0402
2Q93	2238 869 15101	100pF 5% 50V 0402
2R00	2238 586 59812	100nF 20% 50V 0603
2R01	2238 787 15641	22nF 5% 16V 0402
2R02	2238 787 15641	22nF 5% 16V 0402
2R03	2238 787 15641	22nF 5% 16V 0402
2R04	2238 787 15641	22nF 5% 16V 0402
2R05	2238 787 15641	22nF 5% 16V 0402
2R06	2238 586 59812	100nF 20% 50V 0603
2R07	2238 787 15641	22nF 5% 16V 0402
2R08	2238 586 59812	100nF 20% 50V 0603
2R09	2238 787 15641	22nF 5% 16V 0402
2R10	2020 552 96618	1nF 10% 50V 0402
2R11	2022 552 05679	1µF 10% 16V 0805
2R12	2022 552 05679	1µF 10% 16V 0805
2R13	2238 869 15101	100pF 5% 50V 0402
2R14	2238 787 15641	22nF 5% 16V 0402
2R15	2022 552 05679	1µF 10% 16V 0805
2R16	2022 552 05679	1µF 10% 16V 0805
2R17	2238 586 59812	100nF 20% 50V 0603
2R18	2238 586 59812	100nF 20% 50V 0603
2R19	2238 586 59812	100nF 20% 50V 0603
2R20	2020 552 96618	1nF 10% 50V 0402
2R21	2020 552 96618	1nF 10% 50V 0402
2R23	2238 869 15101	100pF 5% 50V 0402
2R24	2022 552 05679	1µF 10% 16V 0805
2R25	2238 787 15641	22nF 5% 16V 0402
2R26	2238 586 59812	100nF 20% 50V 0603
2R27	2238 586 59812	100nF 20% 50V 0603
2R28	2020 552 96618	1nF 10% 50V 0402
2R29	2238 787 15641	22nF 5% 16V 0402
2R30	2020 552 96618	1nF 10% 50V 0402
2R31	2238 787 15641	22nF 5% 16V 0402
2R32	2238 586 59812	100nF 20% 50V 0603
2R33	2238 787 15641	22nF 5% 16V 0402
2R34	4822 124 81058	47µF 20% 4V
2R35	2238 787 15641	22nF 5% 16V 0402
2R36	2238 869 15101	100pF 5% 50V 0402
2R37	2238 586 59812	100nF 20% 50V 0603
2R38	2022 552 05679	1µF 10% 16V 0805
2R40	2022 552 05679	1µF 10% 16V 0805
2R41	2238 787 15641	22nF 5% 16V 0402
2R42	2020 552 96618	1nF 10% 50V 0402
2R43	2238 586 59812	100nF 20% 50V 0603
2R44	2022 552 05679	1µF 10% 16V 0805
2R46	4822 124 81058	47µF 20% 4V
2R47	2020 552 96618	1nF 10% 50V 0402
2R48	2020 552 96618	1nF 10% 50V 0402
2R49	2020 552 96618	1nF 10% 50V 0402
2R50	2020 552 96618	1nF 10% 50V 0402
2R51	2020 552 96618	1nF 10% 50V 0402
2R52	2020 552 96618	1nF 10% 50V 0402
2R53	2022 552 05679	1µF 10% 16V 0805
2R54	2020 552 96618	1nF 10% 50V 0402
2R55	2020 552 96618	1nF 10% 50V 0402
2R56	2238 869 15101	100pF 5% 50V 0402
2R57	2020 552 96618	1nF 10% 50V 0402
2R58	2238 787 15641	22nF 5% 16V 0402
2R59	2238 787 15641	22nF 5% 16V 0402
2R60	2020 552 96618	1nF 10% 50V 0402
2R61	2022 552 05679	1µF 10% 16V 0805
2R62	2020 552 96618	1nF 10% 50V 0402
2R63	2020 552 96618	1nF 10% 50V 0402
2R64	2238 787 15641	22nF 5% 16V 0402
2R65	2020 552 96618	1nF 10% 50V 0402
2R66	2020 552 96618	1nF 10% 50V 0402
2R67	2238 586 59812	100nF 20% 50V 0603
2R68	2238 787 15641	22nF 5% 16V 0402
2R69	2238 787 15641	22nF 5% 16V 0402
2R70	2238 787 15641	22nF 5% 16V 0402
2R71	2020 552 96618	1nF 10% 50V 0402
2R72	2020 552 96618	1nF 10% 50V 0402
2R73	2020 552 96618	1nF 10% 50V 0402
2R74	2238 787 15641	22nF 5% 16V 0402
2R75	4822 124 81058	47µF 20% 4V
2R76	2238 787 15641	22nF 5% 16V 0402
2R77	2022 552 05679	1µF 10% 16V 0805
2R78	2238 787 15641	22nF 5% 16V 0402
2R79	2238 787 15641	22nF 5% 16V 0402
2R80	2238 586 59812	100nF 20% 50V 0603
2R81	2022 552 05679	1µF 10% 16V 0805
2R82	2238 787 15641	22nF 5% 16V 0402
2R83	2238 586 59812	100nF 20% 50V 0603
2R84	2238 787 15641	22nF 5% 16V 0402
2R86	2238 787 15641	22nF 5% 16V 0402
2R87	2238 787 15641	22nF 5% 16V 0402
2R88	2238 787 15641	22nF 5% 16V 0402
2R89	2238 869 15101	100pF 5% 50V 0402
2R90	2238 787 15641	22nF 5% 16V 0402
2R91	2238 586 59812	100nF 20% 50V 0603
2R92	2238 787 15641	22nF 5% 16V 0402
2R93	2238 869 15101	100pF 5% 50V 0402
2R94	2238 586 59812	100nF 20% 50V 0603
2R95	2238 787 15641	22nF 5% 16V 0402
2R96	2238 586 59812	100nF 20% 50V 0603
2R97	2238 787 15641	22nF 5% 16V 0402
2R98	2238 787 15641	22nF 5% 16V 0402
2R99	2238 586 59812	100nF 20% 50V 0603
2RA1	2020 552 96618	1nF 10% 50V 0402
2RA2	4822 124 81058	47µF 20% 4V
2RA3	2020 552 96618	1nF 10% 50V 0402
2RA4	2238 869 15101	100pF 5% 50V 0402
2RA5	2020 552 96618	1nF 10% 50V 0402
2RA6	2022 552 05679	1µF 10% 16V 0805
2RA7	2022 552 05679	1µF 10% 16V 0805
2RA8	2022 552 05679	1µF 10% 16V 0805

2RA9	2020 552 96618	1nF 10% 50V 0402
2RB2	2022 552 05679	1µF 10% 16V 0805
2RB3	2020 552 96618	1nF 10% 50V 0402
2RB5	2022 552 05679	1µF 10% 16V 0805
2RB6	2022 552 05679	1µF 10% 16V 0805
2S10	2022 552 05679	1µF 10% 16V 0805
2S42	4822 124 12095	100µF 20% 16V
2S43	4822 124 80151	47µF 16V
2S44	4822 124 12095	100µF 20% 16V
2S45	4822 124 80151	47µF 16V
2T01	3198 017 34730	47nF 16V 0603
2T02	3198 035 71040	100nF 10% 16V 0402
2T03	2238 586 59812	100nF 20% 50V 0603
2T04	2238 586 59812	100nF 20% 50V 0603
2T05	3198 017 34730	47nF 16V 0603
2T06	2238 586 59812	100nF 20% 50V 0603
2T10	3198 034 04790	27pF 1% 50V 0402
2T12	2020 552 96628	10nF 10% 16V 0402
2T13	3198 034 04790	27pF 1% 50V 0402
2T18	2020 004 90283	10µF 20% 10V 1206
2T20	4822 124 80151	47µF 16V
2T21	2020 552 96628	10nF 10% 16V 0402
2T22	2238 586 59812	100nF 20% 50V 0603
2T23	2020 552 96628	10nF 10% 16V 0402
2T25	3198 035 71040	100nF 10% 16V 0402
2T26	3198 035 71040	100nF 10% 16V 0402
2T27	3198 035 71040	100nF 10% 16V 0402
2U01	2020 552 96618	1nF 10% 50V 0402
2U02	2238 586 59812	100nF 20% 50V 0603
2U03	2238 586 59812	100nF 20% 50V 0603
2U04	2238 586 59812	100nF 20% 50V 0603
2U05	2020 552 96618	1nF 10% 50V 0402
2U06	2238 586 59812	100nF 20% 50V 0603
2U07	2238 586 59812	100nF 20% 50V 0603
2U08	3198 035 04710	470pF 50V 0402
2U09	2238 586 59812	100nF 20% 50V 0603
2U10	2020 552 96618	1nF 10% 50V 0402
2U11	2238 586 59812	100nF 20% 50V 0603
2U12	2238 586 59812	100nF 20% 50V 0603
2U13	3198 035 04710	470pF 50V 0402
2U14	2020 552 96618	1nF 10% 50V 0402
2U15	2238 586 59812	100nF 20% 50V 0603
2U16	2020 552 96618	1nF 10% 50V 0402
2U17	2238 586 59812	100nF 20% 50V 0603
2U18	2238 586 59812	100nF 20% 50V 0603
2U19	2238 586 59812	100nF 20% 50V 0603
2U20	2238 586 59812	100nF 20% 50V 0603
2U21	2238 586 59812	100nF 20% 50V 0603
2U25	2020 552 96628	10nF 10% 16V 0402
2U26	2020 552 96628	10nF 10% 16V 0402
2U27	2020 552 96628	10nF 10% 16V 0402
2U28	2238 586 59812	100nF 20% 50V 0603
2U29	2020 552 96618	1nF 10% 50V 0402
2U30	3198 035 04710	470pF 50V 0402
2U31	2022 552 05635	22µF 10% 16V
2U32	2022 552 05635	22µF 10% 16V
2U33	2022 552 05635	22µF 10% 16V
2U34	2022 552 05635	22µF 10% 16V
2U35	2022 552 05635	22µF 10% 16V
2U36	2022 552 05635	22µF 10% 16V
2U37	2022 552 05635	22µF 10% 16V
2U38	2022 552 05635	22µF 10% 16V
2U39	2022 552 05635	22µF 10% 16V
2U40	2022 552 05679	1µF 10% 16V 0805
2U41	2022 552 05679	1µF 10% 16V 0805
2U43	2020 552 96628	10nF 10% 16V 0402
2U44	2020 552 96628	10nF 10% 16V 0402
2U45	2020 552 96628	10nF 10% 16V 0402
2U46	2238 586 59812	100nF 20% 50V 0603
2U50	2022 552 05679	1µF 10% 16V 0805
2U51	2022 552 05679	1µF 10% 16V 0805
2U52	2238 787 15641	22nF 5% 16V 0402
2U53	2238 787 15641	22nF 5% 16V 0402
2U54	2020 552 96623	2.2nF 10% 50V 0402
2U55	2020 552 96628	10nF 10% 16V 0402
2U56	2020 552 96628	10nF 10% 16V 0402
2U57	2020 552 96628	10nF 10% 16V 0402
2U58	2022 552 05679	1µF 10% 16V 0805
2U59	5322 124 41945	22µF 20% 35V
2U60	5322 124 41945	22µF 20% 35V
2U61	5322 124 41945	22µF 20% 35V
2U65	2020 552 96618	1nF 10% 50V 0402
2U72	2020 552 96618	1nF 10% 50V 0402
2U73	2020 552 96618	1nF 10% 50V 0402
2U74	2020 552 96618	1nF 10% 50V 0402
2U75	2020 552 96618	1nF 10% 50V 0402
2U76	2020 552 96618	1nF 10% 50V 0402
2U77	2020 552 96618	1nF 10% 50V 0402
2U78	2020 552 96618	1nF 10% 50V 0402
2U85	2020 552 96623	2.2nF 10% 50V 0402
2U86	2020 552 96623	2.2nF 10% 50V 0402
2U87	2020 552 96623	2.2nF 10% 50V 0402
2U91	2020 552 96684	470nF 10% 25V 0805
2UB1	2238 586 59812	100nF 20% 50V 0603

2V00	2020 552 96618	1nF 10% 50V 0402
2V01	2020 552 96618	1nF 10% 50V 0402
2V02	2020 552 96618	1nF 10% 50V 0402
2V03	2238 586 59812	100nF 20% 50V 0603
2V05	4822 124 81058	47µF 20% 4V
2V06	4822 124 81058	47µF 20% 4V
2V07	2020 552 96628	10nF 10% 16V 0402
2V08	2020 552 96637	10µF 10% 6.3V 0805
2V13	2238 586 59812	100nF 20% 50V 0603
2V14	2020 552 96628	10nF 10% 16V 0402
2V15	2020 552 96637	10µF 10% 6.3V 0805
2V16	2238 586 59812	100nF 20% 50V 0603
2V17	2238 586 59812	100nF 20% 50V 0603
2V18	2238 586 59812	100nF 20% 50V 0603
2V19	2238 586 59812	100nF 20% 50V 0603
2V20	2238 586 59812	100nF 20% 50V 0603
2V21	2238 586 59812	100nF 20% 50V 0603
2V22	2238 586 59812	100nF 20% 50V 0603
2V23	2238 586 59812	100nF 20% 50V 0603
2V24	2238 586 59812	100nF 20% 50V 0603
2V25	2238 586 59812	100nF 20% 50V 0603
2V26	2238 586 59812	100nF 20% 50V 0603
2V27	2238 586 59812	100nF 20% 50V 0603
2V28	2238 586 59812	100nF 20% 50V 0603
2V29	2238 586 59812	100nF 20% 50V 0603
2V30	2238 586 59812	100nF 20% 50V 0603
2V31	2238 586 59812	100nF 20% 50V 0603
2V32	2238 586 59812	100nF 20% 50V 0603
2V33	2020 552 96618	1nF 10% 50V 0402
2V34	2238 869 15101	100pF 5% 50V 0402
2V35	2020 552 96637	10µF 10% 6.3V 0805
2V36	2020 552 96637	10µF 10% 6.3V 0805
2V37	2020 552 96637	10µF 10% 6.3V 0805
2V38	2020 552 96637	10µF 10% 6.3V 0805
2V40	2020 552 96628	10nF 10% 16V 0402
2V41	2020 552 96628	10nF 10% 16V 0402
2V42	2020 552 96628	10nF 10% 16V 0402
2V43	2020 552 96628	10nF 10% 16V 0402
2V44	2020 552 96628	10nF 10% 16V 0402
2V45	2020 552 96628	10nF 10% 16V 0402
2V46	2020 552 96628	10nF 10% 16V 0402
2V47	2020 552 96628	10nF 10% 16V 0402
2V48	2020 552 96628	10nF 10% 16V 0402
2V49	2020 552 96628	10nF 10% 16V 0402
2V50	2020 552 96628	10nF 10% 16V 0402
2V51	2020 552 96628	10nF 10% 16V 0402
2W03	3198 035 71040	100nF 10% 16V 0402
2W06	2238 586 59812	100nF 20% 50V 0603
2W07	3198 017 34730	47nF 16V 0603
2W08	2238 586 59812	100nF 20% 50V 0603
2W15	3198 034 04790	27pF 1% 50V 0402
2W16	3198 034 04790	27pF 1% 50V 0402
2W17	2020 552 96628	10nF 10% 16V 0402
2W18	2020 552 96628	10nF 10% 16V 0402
2W19	2238 586 59812	100nF 20% 50V 0603
2W20	3198 035 71040	100nF 10% 16V 0402
2W21	3198 035 71040	100nF 10% 16V 0402
2W23	4822 124 80151	47µF 16V
2W24	3198 035 71040	100nF 10% 16V 0402
2Y38	2022 552 05679	1µF 10% 16V 0805
2Y39	2022 552 05679	1µF 10% 16V 0805
2Y40	2238 586 59812	100nF 20% 50V 0603
2Y41	2238 586 59812	100nF 20% 50V 0603
2Y42	4822 124 80151	47µF 16V
2Y43	2238 586 59812	100nF 20% 50V 0603
2Y45	2238 586 59812	100nF 20% 50V 0603

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3A00	3198 031 02710	270Ω 5% 0.1W 0402
3A01	3198 031 06810	680Ω 5% 0.01W 0402
3A02	4822 117 13545	100Ω 1% 0402
3A05	3198 031 01810	180Ω 5% 0402
3A06	3198 031 02710	270Ω 5% 0.1W 0402
3A07	4822 051 30331	330Ω 5% 0.062W
3A10	3198 031 04730	47Ω 5% 0402
3A11	3198 031 01830	18kΩ 5% 0.01W 0402
3A12	3198 031 04730	47Ω 5% 0402
3A13	3198 031 04730	47Ω 5% 0402
3A14	3198 031 01830	18kΩ 5% 0.01W 0402
3A15	4822 117 13601	22kΩ 5% 0402
3A17	3198 031 02240	220kΩ 5% 0.1W 0402
3A19	3198 031 02240	220kΩ 5% 0.1W 0402
3A20	4822 117 13603	33kΩ 5% 0402
3A21	3198 031 02730	27kΩ 5% 0402
3A22	4822 117 13603	33kΩ 5% 0402
3A23	3198 031 02730	27kΩ 5% 0402
3A24	3198 031 02240	220kΩ 5% 0.1W 0402
3A25	3198 031 02240	220kΩ 5% 0.1W 0402
3A26	3198 031 02240	220kΩ 5% 0.1W 0402
3A27	3198 031 02240	220kΩ 5% 0.1W 0402
3A31▲	5322 117 11726	10Ω 5%
3A38	3198 031 04730	47Ω 5% 0402

3A39	4822 117 13545	100Ω 1% 0402
3A40	4822 117 13545	100Ω 1% 0402
3A42	4822 117 13548	1kΩ 5% 0402
3A45	4822 117 13548	1kΩ 5% 0402
3A46	4822 117 13548	1kΩ 5% 0402
3A50	3198 031 04720	4.7kΩ 5% 0402
3A51▲	4822 117 11748	Fuse 2.2Ω 5% 1206
3A53	3198 031 03910	390Ω 1% 0402
3A56	3198 031 06820	6.8kΩ 5% 0.01W 0402
3A57	4822 117 13602	2.2kΩ 5% 0.01W 0402
3A60	3198 031 02730	27kΩ 5% 0402
3A63	4822 117 13545	100Ω 1% 0402
3A65	3198 031 04720	4.7kΩ 5% 0402
3A67	3198 031 04720	4.7kΩ 5% 0402
3A80	4822 117 13545	100Ω 1% 0402
3B00	3198 031 04720	4.7kΩ 5% 0402
3B01	3198 031 04720	4.7kΩ 5% 0402
3B02	4822 117 13545	100Ω 1% 0402
3B03	4822 117 13545	100Ω 1% 0402
3B04	4822 117 13606	10kΩ 5% 0.01W 0402
3B05	3198 031 04730	47Ω 5% 0402
3B06	3198 031 04730	47Ω 5% 0402
3B07	4822 117 13545	100Ω 1% 0402
3B08	4822 117 13545	100Ω 1% 0402
3B09	2120 550 00054	VDR 90V 1mA 0402
3B10	2120 550 00054	VDR 90V 1mA 0402
3B11	2120 550 00054	VDR 90V 1mA 0402
3B12	3198 031 04720	4.7kΩ 5% 0402
3B13	3198 031 04720	4.7kΩ 5% 0402
3B14	4822 117 13545	100Ω 1% 0402
3B15	4822 117 13545	100Ω 1% 0402
3B16	4822 117 13606	10kΩ 5% 0.01W 0402
3B17	3198 031 04730	47Ω 5% 0402
3B18	3198 031 04730	47Ω 5% 0402
3B19	4822 117 13545	100Ω 1% 0402
3B20	4822 117 13545	100Ω 1% 0402
3B21	2120 550 00054	VDR 90V 1mA 0402
3B22	2120 550 00054	VDR 90V 1mA 0402
3B23	4822 117 13548	1kΩ 5% 0402
3B24	4822 117 13548	1kΩ 5% 0402
3B27	4822 117 13602	2.2kΩ 5% 0.01W 0402
3B28	4822 117 13602	2.2kΩ 5% 0.01W 0402
3B29	3198 031 03390	33Ω 1% 0402
3B30	2322 705 70399	39Ω 5% 0402
3B31	4822 117 13606	10kΩ 5% 0.01W 0402
3B32	2322 705 70399	39Ω 5% 0402
3B33	4822 117 13606	10kΩ 5% 0.01W 0402
3B34	2322 705 70399	39Ω 5% 0402
3B35	4822 117 13543	470Ω 5% 0402
3B36	3198 031 01230	12kΩ 5% 0402
3B37	4822 117 13548	1kΩ 5% 0402
3B38	4822 117 13548	1kΩ 5% 0402
3B39	4822 117 13545	100Ω 1% 0402
3B40	4822 117 13548	1kΩ 5% 0402
3B41	4822 117 13545	100Ω 1% 0402
3B42	4822 117 13545	100Ω 1% 0402
3B43	4822 117 13606	10kΩ 5% 0.01W 0402
3B44	4822 117 13543	470Ω 5% 0402
3B45	4822 117 13543	470Ω 5% 0402
3B46	3198 031 06890	68Ω 5% 0402
3B48	2120 550 00054	VDR 90V 1mA 0402
3B49	2120 550 00054	VDR 90V 1mA 0402
3B50	2350 033 11339	4 x 33Ω 5%
3B51	2350 033 11339	4 x 33Ω 5%
3B52	2350 033 11339	4 x 33Ω 5%
3B53	2350 033 11339	4 x 33Ω 5%
3B54	2120 550 00054	VDR 90V 1mA 0402
3B55	2120 550 00054	VDR 90V 1mA 0402
3B56	2120 550 00054	VDR 90V 1mA 0402
3B57	2120 550 00054	VDR 90V 1mA 0402
3B58	2120 550 00054	VDR 90V 1mA 0402
3B59	2120 550 00054	VDR 90V 1mA 0402
3B60	2120 550 00054	VDR 90V 1mA 0402
3B61	2120 550 00054	VDR 90V 1mA 0402
3B62	2120 550 00054	VDR 90V 1mA 0402
3B63	4822 117 13545	100Ω 1% 0402
3B64	3198 031 04720	4.7kΩ 5% 0402
3B65	4822 117 13545	100Ω 1% 0402
3B66	3198 031 04720	4.7kΩ 5% 0402
3B67	4822 117 13605	Jumper 0402
3B68	4822 051 30759	75Ω 5% 0.062W
3B69	4822 117 13605	Jumper 0402
3B70	4822 051 30759	75Ω 5% 0.062W
3B71	4822 117 13605	Jumper 0402
3B72	4822 051 30759	75Ω 5% 0.062W
3B73	2350 033 11339	4 x 33Ω 5%
3B74	4822 117 13548	1kΩ 5% 0402
3B75	2350 033 11339	4 x 33Ω 5%
3B76	4822 117 13605	Jumper 0402
3B78	4822 117 13543	470Ω 5% 0402
3B80	4822 117 13543	470Ω 5% 0402
3B82	4822 117 13543	470Ω 5% 0402
3B83	4822 117 13548	1kΩ 5% 0402
3B84	4822 117 13548	1kΩ 5% 0402

3B85	4822 117 13605	Jumper 0402
3B86	4822 117 13548	1kΩ 5% 0402
3B87	4822 117 13605	Jumper 0402
3B88	4822 117 13548	1kΩ 5% 0402
3B89	4822 117 13548	1kΩ 5% 0402
3B90	3198 031 02290	22Ω 5% 0.1W 0402
3B91	4822 117 11297	100kΩ 5% 0.1W
3B92	3198 031 02290	22Ω 5% 0.1W 0402
3B93	4822 117 11297	100kΩ 5% 0.1W
3B95	3198 031 03390	33Ω 1% 0402
3B96	3198 031 03390	33Ω 1% 0402
3B97	3198 031 03390	33Ω 1% 0402
3C00	3198 031 02710	270Ω 5% 0.1W 0402
3C01	3198 031 06810	680Ω 5% 0.01W 0402
3C02	4822 117 13545	100Ω 1% 0402
3C05	3198 031 01810	180Ω 5% 0402
3C06	3198 031 02710	270Ω 5% 0.1W 0402
3C31▲	5322 117 11726	10Ω 5%
3C32	3198 031 01220	1.2kΩ 5% 0.01W 0402
3C33	3198 031 08210	820Ω 5% 0.5W
3C34	3198 031 01220	1.2kΩ 5% 0.01W 0402
3C39	4822 117 13545	100Ω 1% 0402
3C40	4822 117 13545	100Ω 1% 0402
3C43	3198 031 01820	1.8kΩ 5% 0.01W 0402
3C44	3198 031 01220	1.2kΩ 5% 0.01W 0402
3C45	3198 031 04730	47Ω 5% 0402
3C50	3198 031 04720	4.7kΩ 5% 0402
3C51▲	4822 117 11748	Fuse 2.2Ω 5% 1206
3C52	4822 051 30331	330Ω 5% 0.062W
3C53	3198 031 03910	390Ω 1% 0402
3C56	3198 031 06820	6.8kΩ 5% 0.01W 0402
3C57	4822 117 13602	2.2kΩ 5% 0.01W 0402
3C60	3198 031 02730	27kΩ 5% 0402
3C63	4822 117 13545	100Ω 1% 0402
3C65	3198 031 04720	4.7kΩ 5% 0402
3C67	3198 031 04720	4.7kΩ 5% 0402
3C80	4822 117 13545	100Ω 1% 0402
3E01	4822 117 13545	100Ω 1% 0402
3E02	4822 117 13545	100Ω 1% 0402
3E03	4822 117 13545	100Ω 1% 0402
3E04	4822 117 13545	100Ω 1% 0402
3E05	4822 117 13545	100Ω 1% 0402
3E06	4822 117 13545	100Ω 1% 0402
3E07	3198 031 08220	8.2kΩ 5% 0.5W
3E08	3198 031 01820	1.8kΩ 5% 0.01W 0402
3E12	4822 117 13545	100Ω 1% 0402
3E13	4822 117 13545	100Ω 1% 0402
3E14	4822 117 13606	10kΩ 5% 0.01W 0402
3E15	4822 117 13596	220Ω 5% 0.01W 0402
3E16	3198 031 02720	2.7kΩ 5% 0.01W 0402
3E17	4822 117 13545	100Ω 1% 0402
3E18	4822 117 13548	1kΩ 5% 0402
3E19	2322 706 71002	1kΩ 1% 0402
3E20	4822 117 13548	1kΩ 5% 0402
3E30	4822 117 13545	100Ω 1% 0402
3E31	4822 117 13545	100Ω 1% 0402
3F01	3198 031 04720	4.7kΩ 5% 0402
3F02	2322 705 70184	180Ω 5% 0402
3F03	3198 031 06830	68kΩ 5% 0.01W 0402
3F04	4822 117 13601	22kΩ 5% 0402
3F05	3198 031 06830	68kΩ 5% 0.01W 0402
3F06	4822 117 13606	10kΩ 5% 0.01W 0402
3F09	4822 117 13601	22kΩ 5% 0402
3F10	4822 117 11297	100kΩ 5% 0.1W
3F11	3198 031 06830	68kΩ 5% 0.01W 0402
3F12	3198 031 04730	47Ω 5% 0402
3F13	4822 117 11297	100kΩ 5% 0.1W
3F14	4822 117 13606	10kΩ 5% 0.01W 0402
3F15	3198 031 04730	47Ω 5% 0402
3F16	3198 031 01090	10Ω 5% 0.01W 0402
3F17	3198 031 06830	68kΩ 5% 0.01W 0402
3F18	4822 117 13602	2.2kΩ 5% 0.01W 0402
3F19	4822 117 13602	2.2kΩ 5% 0.01W 0402
3F20	4822 117 13606	10kΩ 5% 0.01W 0402
3F21	4822 117 13545	100Ω 1% 0402
3F22	3198 031 06830	68kΩ 5% 0.01W 0402
3F23	4822 117 13601	22kΩ 5% 0402
3F24	4822 117 13601	22kΩ 5% 0402
3F25	3198 031 04720	4.7kΩ 5% 0402
3F26	3198 031 04720	4.7kΩ 5% 0402
3F27	4822 117 10353	150Ω 1% 0.1W
3F28	4822 117 13545	100Ω 1% 0402
3F29	4822 117 13545	100Ω 1% 0402
3F30	3198 031 03390	33Ω 1% 0402
3F31	3198 031 03390	33Ω 1% 0402
3F32	3198 031 03390	33Ω 1% 0402
3F33	3198 031 03390	33Ω 1% 0402
3F34	3198 031 03390	33Ω 1% 0402
3F35	3198 031 08230	82kΩ 5% 0402
3F36	4822 117 13545	100Ω 1% 0402
3F37	4822 117 13545	100Ω 1% 0402
3F38	3198 031 03390	33Ω 1% 0402
3F39	4822 117 13606	10kΩ 5% 0.01W 0402
3F40	4822 117 13602	2.2kΩ 5% 0.01W 0402
3F41	4822 117 13606	10kΩ 5% 0.01W 0402
3F42	3198 031 04720	4.7kΩ 5% 0402
3F43	3198 031 04720	4.7kΩ 5% 0402
3F44	4822 117 13606	10kΩ 5% 0.01W 0402
3F45	3198 031 04730	47Ω 5% 0402
3F46	4822 117 13548	1kΩ 5% 0402
3F47	4822 117 13597	330Ω 5% 0.01W 0402
3F48	3198 031 03390	33Ω 1% 0402
3F49	4822 117 11297	100kΩ 5% 0.1W
3F50	3198 031 01090	10Ω 5% 0.01W 0402
3F51	4822 117 11297	100kΩ 5% 0.1W
3F52	4822 117 13606	10kΩ 5% 0.01W 0402
3F54	4822 117 13545	100Ω 1% 0402
3F55	4822 117 13548	1kΩ 5% 0402
3F57	4822 117 11297	100kΩ 5% 0.1W
3F60	4822 117 13548	1kΩ 5% 0402
3F64	4822 117 13601	22kΩ 5% 0402
3F65	3198 031 06830	68kΩ 5% 0.01W 0402
3F66	3198 031 08220	8.2kΩ 5% 0.5W
3F67	4822 117 13606	10kΩ 5% 0.01W 0402
3F68	4822 117 13606	10kΩ 5% 0.01W 0402
3F70	4822 117 13597	330Ω 5% 0.01W 0402
3F71	4822 117 13606	10kΩ 5% 0.01W 0402
3F72	3198 031 04720	4.7kΩ 5% 0402
3F73	3198 031 04720	4.7kΩ 5% 0402
3F76	4822 117 13545	100Ω 1% 0402
3F77	4822 117 13545	100Ω 1% 0402
3F78	4822 117 13545	100Ω 1% 0402
3F79	4822 117 13545	100Ω 1% 0402
3F82	4822 117 13545	100Ω 1% 0402
3F85	4822 117 13606	10kΩ 5% 0.01W 0402
3F86	4822 117 13545	100Ω 1% 0402
3F88	4822 117 13545	100Ω 1% 0402
3F90	4822 117 13545	100Ω 1% 0402
3FA0	4822 117 13602	2.2kΩ 5% 0.01W 0402
3FA1	4822 117 13606	10kΩ 5% 0.01W 0402
3FA2	3198 031 01220	1.2kΩ 5% 0.01W 0402
3FA3	4822 117 10353	150Ω 1% 0.1W
3FA4	4822 117 10353	150Ω 1% 0.1W
3FA5	4822 117 13548	1kΩ 5% 0402
3FA6	4822 117 13548	1kΩ 5% 0402
3FA7	4822 117 13548	1kΩ 5% 0402
3FA8	3198 031 01520	1.2kΩ 5% 0.01W 0402
3FA9	4822 117 13548	1kΩ 5% 0402
3FB1	4822 117 10353	150Ω 1% 0.1W
3FB2	4822 117 10353	150Ω 1% 0.1W
3FB3	3198 031 01090	10Ω 5% 0.01W 0402
3FB4	2322 705 70184	180Ω 5% 0402
3FB5	3198 031 03340	330kΩ 5% 0402
3FB6	2322 705 70564	560kΩ 5% 0402
3G00	4822 117 13548	1kΩ 5% 0402
3G01	4822 117 13545	100Ω 1% 0402
3G02	4822 117 13545	100Ω 1% 0402
3G03	4822 117 13606	10kΩ 5% 0.01W 0402
3G04	4822 117 11297	100kΩ 5% 0.1W
3G05	4822 117 13603	33kΩ 5% 0402
3G06	4822 117 13548	1kΩ 5% 0402
3G07	4822 117 13606	10kΩ 5% 0.01W 0402
3G08	4822 117 13606	10kΩ 5% 0.01W 0402
3G09	4822 117 13606	10kΩ 5% 0.01W 0402
3G10	4822 117 13606	10kΩ 5% 0.01W 0402
3G11	4822 117 13606	10kΩ 5% 0.01W 0402
3G13	4822 117 13606	10kΩ 5% 0.01W 0402
3G14	4822 117 13546	47Ω 5% 0402
3G15	4822 117 13546	47Ω 5% 0402
3G16	4822 117 13546	47Ω 5% 0402
3G17	4822 117 13546	47Ω 5% 0402
3G20	4822 117 13548	1kΩ 5% 0402
3G21	4822 117 13548	1kΩ 5% 0402
3G22	4822 117 13545	100Ω 1% 0402
3G23	4822 117 13545	100Ω 1% 0402
3G24	4822 117 13545	100Ω 1% 0402
3G25	4822 117 13545	100Ω 1% 0402
3G27	4822 117 13545	100Ω 1% 0402
3G34	3198 031 04720	4.7kΩ 5% 0402
3G40	3198 031 01810	180Ω 5% 0402
3G41	3198 031 01510	150Ω 5% 0.01W 0402
3G42	3198 031 01810	180Ω 5% 0402
3G43	3198 031 01810	180Ω 5% 0402
3G44	3198 031 01510	150Ω 5% 0.01W 0402
3G45	3198 031 01810	180Ω 5% 0402
3G46	3198 031 01810	180Ω 5% 0402
3G47	3198 031 01510	150Ω 5% 0.01W 0402
3G48	3198 031 01810	180Ω 5% 0402
3G49	3198 031 01810	180Ω 5% 0402
3G50	3198 031 01510	150Ω 5% 0.01W 0402
3G51	3198 031 01810	180Ω 5% 0402
3G55	3198 031 01810	180Ω 5% 0402
3G56	3198 031 01510	150Ω 5% 0.01W 0402
3G57	3198 031 01810	180Ω 5% 0402
3G58	3198 031 01810	180Ω 5% 0402
3G59	3198 031 01510	150Ω 5% 0.01W 0402
3G60	3198 031 01810	180Ω 5% 0402
3G61	3198 031 01810	180Ω 5% 0402
3G62	3198 031 01510	150Ω 5% 0.01W 0402
3G63	3198 031 01810	180Ω 5% 0402
3G64	3198 031 01810	180Ω 5% 0402
3G65	3198 031 01510	150Ω 5% 0.01W 0402
3G68	3198 031 04720	4.7kΩ 5% 0402
3G69	3198 031 04720	4.7kΩ 5% 0402
3G76	3198 031 01810	180Ω 5% 0402
3G80	4822 117 13606	10kΩ 5% 0.01W 0402
3G81	4822 117 13606	10kΩ 5% 0.01W 0402
3G82	3198 031 04720	4.7kΩ 5% 0402
3G83	3198 031 04720	4.7kΩ 5% 0402
3G84	3198 031 01810	180Ω 5% 0402
3G85	3198 031 01510	150Ω 5% 0.01W 0402
3G86	3198 031 01810	180Ω 5% 0402
3G87	3198 031 01810	180Ω 5% 0402
3G88	3198 031 01510	150Ω 5% 0.01W 0402
3G89	3198 031 01810	180Ω 5% 0402
3GA0	4822 117 13548	1kΩ 5% 0402
3GA1	3198 031 04730	47Ω 5% 0402
3GA2	4822 117 13546	47Ω 5% 0402
3GA3	3198 031 04730	47Ω 5% 0402
3GA4	4822 117 13606	10kΩ 5% 0.01W 0402
3GA5	4822 117 13606	10kΩ 5% 0.01W 0402
3GB3	4822 117 13545	100Ω 1% 0402
3H00	4822 117 13606	10kΩ 5% 0.01W 0402
3H01	4822 117 13606	10kΩ 5% 0.01W 0402
3H02	4822 117 13596	220Ω 5% 0.01W 0402
3H03	3198 031 04720	4.7kΩ 5% 0402
3H04	4822 117 13545	100Ω 1% 0402
3H05	4822 117 13545	100Ω 1% 0402
3H07	3198 031 03390	33Ω 1% 0402
3H08	3198 031 04720	4.7kΩ 5% 0402
3H09	4822 117 13606	10kΩ 5% 0.01W 0402
3H10	4822 117 13606	10kΩ 5% 0.01W 0402
3H11	4822 117 13606	10kΩ 5% 0.01W 0402
3H13	4822 117 13606	10kΩ 5% 0.01W 0402
3H14	2350 033 11103	4x 10kΩ 5% Netw.
3H15	4822 117 13606	10kΩ 5% 0.01W 0402
3H16	4822 117 13606	10kΩ 5% 0.01W 0402
3H17	2350 033 11103	4x 10kΩ 5% Netw.
3H18	4822 117 13606	10kΩ 5% 0.01W 0402
3H19	4822 117 13548	1kΩ 5% 0402
3H20	2322 705 70399	39Ω 5% 0402
3H21	2322 705 70399	39Ω 5% 0402
3H22	3198 031 06890	68Ω 5% 0402
3H28	4822 117 13606	10kΩ 5% 0.01W 0402
3H29	4822 117 13606	10kΩ 5% 0.01W 0402
3H31	4822 117 13606	10kΩ 5% 0.01W 0402
3H32	4822 117 13606	10kΩ 5% 0.01W 0402
3H33	4822 117 13545	100Ω 1% 0402
3H34	2350 033 11689	4x 68Ω 5% Netw.
3H35	2350 033 11689	4x 68Ω 5% Netw.
3H36	2350 033 11689	4x 68Ω 5% Netw.
3H37	2350 033 11689	4x 68Ω 5% Netw.
3H38	2350 033 11689	4x 68Ω 5% Netw.
3H39	2350 033 11689	4x 68Ω 5% Netw.
3H40	2350 033 11689	4x 68Ω 5% Netw.
3H41	2350 033 11689	4x 68Ω 5% Netw.
3H42	3198 031 06890	68Ω 5% 0402
3H44	4822 117 13545	100Ω 1% 0402
3H50	4822 117 13606	10kΩ 5% 0.01W 0402
3H51	4822 117 13606	10kΩ 5% 0.01W 0402
3H65	2350 033 10101	4 x 100Ω 5%
3H67	4822 117 13606	10kΩ 5% 0.01W 0402
3H69	4822 117 13606	10kΩ 5% 0.01W 0402
3H70	4822 117 13606	10kΩ 5% 0.01W 0402
3H71	4822 117 13606	10kΩ 5% 0.01W 0402
3H72	4822 117 13545	100Ω 1% 0402
3H73	3198 031 03390	33Ω 1% 0402
3H74	4822 117 13546	47Ω 5% 0402
3H75	4822 117 13545	100Ω 1% 0402
3H79	3198 031 02290	22Ω 5% 0.1W 0402
3H82	3198 031 01050	1MΩ 5% 0402
3H83	4822 117 13606	10kΩ 5% 0.01W 0402
3H84	4822 117 13606	10kΩ 5% 0.01W 0402
3H86	4822 117 13606	10kΩ 5% 0.01W 0402
3H87	4822 117 13606	10kΩ 5% 0.01W 0402
3H88	4822 117 13606	10kΩ 5% 0.01W 0402
3H90	4822 117 13606	10kΩ 5% 0.01W 0402
3H92	3198 031 07590	75Ω 5% 0402
3H93	4822 117 13606	10kΩ 5% 0.01W 0402
3H94	4822 117 13606	10kΩ 5% 0.01W 0402
3H95	4822 117 13597	330Ω 5% 0.01W 0402
3H97	4822 117 13606	10kΩ 5% 0.01W 0402
3H98	4822 117 13545	100Ω 1% 0402
3H99	4822 117 13545	100Ω 1% 0402
3I05	4822 117 13596	220Ω 5% 0.01W 0402
3I22	4822 117 13545	100Ω 1% 0402
3I23	4822 117 11297	100kΩ 5% 0.1W
3I25	4822 117 13545	100Ω 1% 0402
3I26	4822 117 11297	100kΩ 5% 0.1W
3I27	4822 051 30759	75Ω 5% 0.062W
3I29	4822 051 30759	75Ω 5% 0.062W
3I42	4822 051 30759	75Ω 5% 0.062W

3I50	4822 117 13601	22kΩ 5% 0402
3I51	3198 031 04730	47Ω 5% 0402
3I58▲	4822 117 11748	Fuse 2.2Ω 5% 1206
3I60	3198 031 06890	68Ω 5% 0402
3I61	3198 031 07590	75Ω 5% 0402
3I62	3198 031 07590	75Ω 5% 0402
3J03	3198 031 06890	68Ω 5% 0402
3J07	3198 031 06890	68Ω 5% 0402
3J08	3198 031 06890	68Ω 5% 0402
3J09	3198 031 06890	68Ω 5% 0402
3J11	3198 031 06890	68Ω 5% 0402
3J50	3198 031 03390	33Ω 1% 0402
3J51	3198 031 03390	33Ω 1% 0402
3J52	3198 031 03390	33Ω 1% 0402
3J53	3198 031 03390	33Ω 1% 0402
3J54	3198 031 03390	33Ω 1% 0402
3J55	3198 031 03390	33Ω 1% 0402
3J56	3198 031 03390	33Ω 1% 0402
3J57	3198 031 03390	33Ω 1% 0402
3J58	3198 031 03390	33Ω 1% 0402
3J59	3198 031 03390	33Ω 1% 0402
3J60	3198 031 03390	33Ω 1% 0402
3J61	3198 031 03390	33Ω 1% 0402
3J62	3198 031 03390	33Ω 1% 0402
3J63	3198 031 03390	33Ω 1% 0402
3J64	3198 031 03390	33Ω 1% 0402
3J65	3198 031 03390	33Ω 1% 0402
3J66	3198 031 03390	33Ω 1% 0402
3J67	3198 031 03390	33Ω 1% 0402
3J68	3198 031 03390	33Ω 1% 0402
3J69	3198 031 03390	33Ω 1% 0402
3J70	3198 031 03390	33Ω 1% 0402
3J71	3198 031 03390	33Ω 1% 0402
3J72	3198 031 03390	33Ω 1% 0402
3J73	3198 031 03390	33Ω 1% 0402
3J74	3198 031 03390	33Ω 1% 0402
3J75	3198 031 03390	33Ω 1% 0402
3J76	3198 031 03390	33Ω 1% 0402
3J77	3198 031 03390	33Ω 1% 0402
3J78	3198 031 03390	33Ω 1% 0402
3J79	3198 031 03390	33Ω 1% 0402
3J80	3198 031 03390	33Ω 1% 0402
3J81	3198 031 03390	33Ω 1% 0402
3J82	3198 031 03390	33Ω 1% 0402
3J83	3198 031 03390	33Ω 1% 0402
3J84	3198 031 03390	33Ω 1% 0402
3J85	3198 031 03390	33Ω 1% 0402
3L00	4822 117 13546	47Ω 5% 0402
3L01	4822 117 13546	47Ω 5% 0402
3L02	4822 117 13546	47Ω 5% 0402
3L03	4822 117 13546	47Ω 5% 0402
3L04	4822 117 13546	47Ω 5% 0402
3L05	4822 117 13546	47Ω 5% 0402
3L06	4822 117 13546	47Ω 5% 0402
3L07	4822 117 13546	47Ω 5% 0402
3L08	4822 117 13546	47Ω 5% 0402
3L09	4822 117 13546	47Ω 5% 0402
3L10	4822 117 13546	47Ω 5% 0402
3L11	4822 117 13546	47Ω 5% 0402
3L12	4822 117 13546	47Ω 5% 0402
3L13	4822 117 13546	47Ω 5% 0402
3L14	4822 117 13546	47Ω 5% 0402
3L15	4822 117 13546	47Ω 5% 0402
3L16	4822 117 13546	47Ω 5% 0402
3L17	4822 117 13546	47Ω 5% 0402
3L18	4822 117 13546	47Ω 5% 0402
3L19	4822 117 13546	47Ω 5% 0402
3L20	4822 117 13546	47Ω 5% 0402
3L21	4822 117 13546	47Ω 5% 0402
3L22	4822 117 13546	47Ω 5% 0402
3L23	4822 117 13546	47Ω 5% 0402
3L24	4822 117 13546	47Ω 5% 0402
3L25	4822 117 13546	47Ω 5% 0402
3L26	4822 117 13546	47Ω 5% 0402
3L27	4822 117 13546	47Ω 5% 0402
3L28	4822 117 13546	47Ω 5% 0402
3L29	4822 117 13546	47Ω 5% 0402
3L30	4822 117 13546	47Ω 5% 0402
3L31	4822 117 13546	47Ω 5% 0402
3L32	4822 117 13546	47Ω 5% 0402
3L33	4822 117 13546	47Ω 5% 0402
3L36	4822 117 13548	1kΩ 5% 0402
3L37	4822 117 13548	1kΩ 5% 0402
3L38	4822 117 13548	1kΩ 5% 0402
3L39	4822 117 13548	1kΩ 5% 0402
3L40	4822 117 13545	100Ω 1% 0402
3L41	4822 117 13546	47Ω 5% 0402
3L42	4822 117 13606	10kΩ 5% 0.01W 0402
3L43	4822 117 13546	47Ω 5% 0402
3L44	4822 117 13546	47Ω 5% 0402
3L45	3198 031 01810	180Ω 5% 0402
3L46	4822 117 13546	47Ω 5% 0402
3L47	4822 117 13545	100Ω 1% 0402
3L48	4822 117 13545	100Ω 1% 0402
3L50	3198 031 02290	22Ω 5% 0.1W 0402
3L51	4822 117 13545	100Ω 1% 0402
3L52	4822 117 13606	10kΩ 5% 0.01W 0402
3L53	4822 117 13606	10kΩ 5% 0.01W 0402
3L56	3198 031 02290	22Ω 5% 0.1W 0402
3L57	3198 031 02290	22Ω 5% 0.1W 0402
3L58	3198 031 02290	22Ω 5% 0.1W 0402
3L59	3198 031 02290	22Ω 5% 0.1W 0402
3L60	3198 031 02290	22Ω 5% 0.1W 0402
3L61	3198 031 02290	22Ω 5% 0.1W 0402
3L62	3198 031 02290	22Ω 5% 0.1W 0402
3L63	3198 031 02290	22Ω 5% 0.1W 0402
3L64	3198 031 02290	22Ω 5% 0.1W 0402
3L65	3198 031 02290	22Ω 5% 0.1W 0402
3L66	3198 031 02290	22Ω 5% 0.1W 0402
3L67	3198 031 02290	22Ω 5% 0.1W 0402
3L68	3198 031 02290	22Ω 5% 0.1W 0402
3L69	3198 031 02290	22Ω 5% 0.1W 0402
3L70	3198 031 02290	22Ω 5% 0.1W 0402
3L71	3198 031 02290	22Ω 5% 0.1W 0402
3L73	3198 031 02290	22Ω 5% 0.1W 0402
3L74	3198 031 02290	22Ω 5% 0.1W 0402
3L75	4822 117 13606	10kΩ 5% 0.01W 0402
3L76	4822 117 13545	100Ω 1% 0402
3L77	4822 117 13545	100Ω 1% 0402
3L78	4822 117 13546	47Ω 5% 0402
3L79	4822 117 13546	47Ω 5% 0402
3L80	4822 117 13545	100Ω 1% 0402
3L81	4822 117 13545	100Ω 1% 0402
3L82	4822 117 13545	100Ω 1% 0402
3L83	4822 117 13545	100Ω 1% 0402
3L84	4822 117 13545	100Ω 1% 0402
3L85	4822 117 13545	100Ω 1% 0402
3L86	4822 117 13545	100Ω 1% 0402
3L87	4822 117 13545	100Ω 1% 0402
3L88	4822 117 13545	100Ω 1% 0402
3L89	3198 031 02290	22Ω 5% 0.1W 0402
3L90	4822 117 13548	1kΩ 5% 0402
3L91	4822 117 13548	1kΩ 5% 0402
3L92	4822 117 13548	1kΩ 5% 0402
3L93	3198 031 06810	680Ω 5% 0.01W 0402
3L94	4822 117 13606	10kΩ 5% 0.01W 0402
3L95	4822 117 13606	10kΩ 5% 0.01W 0402
3L96	4822 117 13597	330Ω 5% 0.01W 0402
3L97	4822 117 13606	10kΩ 5% 0.01W 0402
3L98	4822 117 13606	10kΩ 5% 0.01W 0402
3LA0	4822 117 13606	10kΩ 5% 0.01W 0402
3LA1	4822 117 13606	10kΩ 5% 0.01W 0402
3LA2	4822 117 13606	10kΩ 5% 0.01W 0402
3LA3	4822 117 13606	10kΩ 5% 0.01W 0402
3LA4	4822 117 13606	10kΩ 5% 0.01W 0402
3LA5	4822 117 13548	1kΩ 5% 0402
3LA6	4822 117 13606	10kΩ 5% 0.01W 0402
3LA7	4822 117 13606	10kΩ 5% 0.01W 0402
3LA8	4822 117 13606	10kΩ 5% 0.01W 0402
3LA9	4822 117 13606	10kΩ 5% 0.01W 0402
3LB1	4822 117 13606	10kΩ 5% 0.01W 0402
3LB2	4822 117 13606	10kΩ 5% 0.01W 0402
3LB3	4822 117 13606	10kΩ 5% 0.01W 0402
3LB4	4822 117 13606	10kΩ 5% 0.01W 0402
3LB5	4822 117 13606	10kΩ 5% 0.01W 0402
3LB6	3198 031 01050	1MΩ 5% 0402
3LB7	4822 117 13606	10kΩ 5% 0.01W 0402
3LB8	4822 117 13606	10kΩ 5% 0.01W 0402
3LB9	4822 117 13606	10kΩ 5% 0.01W 0402
3LC0	4822 117 13606	10kΩ 5% 0.01W 0402
3LC1	4822 117 13606	10kΩ 5% 0.01W 0402
3LC2	4822 117 13606	10kΩ 5% 0.01W 0402
3LC3	4822 117 13606	10kΩ 5% 0.01W 0402
3LC4	4822 117 13606	10kΩ 5% 0.01W 0402
3LC5	4822 117 11297	100kΩ 5% 0.1W
3LC8	4822 117 13606	10kΩ 5% 0.01W 0402
3LC9	4822 117 13606	10kΩ 5% 0.01W 0402
3LD0	4822 117 13606	10kΩ 5% 0.01W 0402
3LD1	4822 117 13606	10kΩ 5% 0.01W 0402
3LD2	4822 117 13606	10kΩ 5% 0.01W 0402
3LD3	4822 117 13606	10kΩ 5% 0.01W 0402
3LD4	4822 117 13606	10kΩ 5% 0.01W 0402
3LD5	4822 117 13606	10kΩ 5% 0.01W 0402
3LD6	4822 117 13606	10kΩ 5% 0.01W 0402
3LD7	4822 117 13606	10kΩ 5% 0.01W 0402
3LD8	4822 117 13606	10kΩ 5% 0.01W 0402
3LD9	4822 117 13606	10kΩ 5% 0.01W 0402
3LE0	4822 117 13606	10kΩ 5% 0.01W 0402
3LE1	4822 117 13545	100Ω 1% 0402
3LE2	4822 117 13545	100Ω 1% 0402
3LE3	3198 031 04720	4.7kΩ 5% 0402
3LE4	3198 031 04720	4.7kΩ 5% 0402
3LE5	4822 117 13545	100Ω 1% 0402
3LE7	4822 117 13606	10kΩ 5% 0.01W 0402
3LE8	4822 117 13606	10kΩ 5% 0.01W 0402
3LE9	4822 117 13606	10kΩ 5% 0.01W 0402
3LF0	4822 117 13545	100Ω 1% 0402
3LF1	4822 117 13606	10kΩ 5% 0.01W 0402
3LF2	4822 117 13606	10kΩ 5% 0.01W 0402
3LF3	4822 117 13606	10kΩ 5% 0.01W 0402
3LF4	4822 117 13603	33kΩ 5% 0402
3LF5	3198 031 01830	18kΩ 5% 0.01W 0402
3LF7	4822 117 13606	10kΩ 5% 0.01W 0402
3LF8	4822 117 13545	100Ω 1% 0402
3LG0	4822 117 13606	10kΩ 5% 0.01W 0402
3LG1	4822 117 13606	10kΩ 5% 0.01W 0402
3LG2	4822 117 13606	10kΩ 5% 0.01W 0402
3LG3	4822 117 13545	100Ω 1% 0402
3LG4	4822 117 13545	100Ω 1% 0402
3LG5	4822 117 13545	100Ω 1% 0402
3LG6	4822 117 13545	100Ω 1% 0402
3LG8	4822 117 13545	100Ω 1% 0402
3LG9	4822 117 13545	100Ω 1% 0402
3LH0	4822 117 13545	100Ω 1% 0402
3LH1	4822 117 13545	100Ω 1% 0402
3LH2	4822 117 13597	330Ω 5% 0.01W 0402
3LH3	4822 117 13545	100Ω 1% 0402
3LH4	4822 117 13545	100Ω 1% 0402
3LH5	4822 117 13606	10kΩ 5% 0.01W 0402
3LH6	4822 117 13606	10kΩ 5% 0.01W 0402
3LH7	4822 117 13545	100Ω 1% 0402
3LH8	4822 117 13545	100Ω 1% 0402
3LH9	4822 117 13545	100Ω 1% 0402
3LJ0	4822 117 13545	100Ω 1% 0402
3LJ1	4822 117 13545	100Ω 1% 0402
3LJ2	4822 117 13606	10kΩ 5% 0.01W 0402
3LJ3	4822 117 13606	10kΩ 5% 0.01W 0402
3LJ4	4822 117 13545	100Ω 1% 0402
3LJ5	4822 117 13545	100Ω 1% 0402
3LJ6	4822 117 13545	100Ω 1% 0402
3LJ7	4822 117 13545	100Ω 1% 0402
3LJ8	4822 117 13545	100Ω 1% 0402
3LJ9	4822 117 13545	100Ω 1% 0402
3LK0	4822 117 13545	100Ω 1% 0402
3LK1	4822 117 13545	100Ω 1% 0402
3LK2	4822 117 13545	100Ω 1% 0402
3LK3	4822 117 13545	100Ω 1% 0402
3LK4	4822 117 13545	100Ω 1% 0402
3LK5	4822 117 13545	100Ω 1% 0402
3LK6	4822 117 13545	100Ω 1% 0402
3LK7	4822 117 13545	100Ω 1% 0402
3LK8	4822 117 13545	100Ω 1% 0402
3LK9	4822 117 13545	100Ω 1% 0402
3LL0	4822 117 13545	100Ω 1% 0402
3LL1	4822 117 13545	100Ω 1% 0402
3LL2	4822 117 13545	100Ω 1% 0402
3LL3	4822 117 13545	100Ω 1% 0402
3LL4	4822 117 13545	100Ω 1% 0402
3LL5	4822 117 13545	100Ω 1% 0402
3LL6	4822 117 13545	100Ω 1% 0402
3LL7	4822 117 13545	100Ω 1% 0402
3LL8	4822 117 13545	100Ω 1% 0402
3LL9	4822 117 13606	10kΩ 5% 0.01W 0402
3LM0	3198 031 03390	33Ω 1% 0402
3LM1	3198 031 03390	33Ω 1% 0402
3LM2	3198 031 03390	33Ω 1% 0402
3LM3	3198 031 03390	33Ω 1% 0402
3LM4	3198 031 03390	33Ω 1% 0402
3LM5	3198 031 03390	33Ω 1% 0402
3LM6	3198 031 03390	33Ω 1% 0402
3LM7	3198 031 03390	33Ω 1% 0402
3LM8	3198 031 03390	33Ω 1% 0402
3LM9	3198 031 03390	33Ω 1% 0402
3LN2	4822 117 13606	10kΩ 5% 0.01W 0402
3LN3	4822 117 13606	10kΩ 5% 0.01W 0402
3LN5	3198 031 03390	33Ω 1% 0402
3LN6	3198 031 03390	33Ω 1% 0402
3LN7	3198 031 03390	33Ω 1% 0402
3LP0	3198 031 03390	33Ω 1% 0402
3LP1	3198 031 03390	33Ω 1% 0402
3LP2	3198 031 02290	22Ω 5% 0.1W 0402
3LP3	3198 031 02290	22Ω 5% 0.1W 0402
3LP4	3198 031 03390	33Ω 1% 0402
3LP5	3198 031 03390	33Ω 1% 0402
3LP6	3198 031 03390	33Ω 1% 0402
3M01	4822 117 13545	100Ω 1% 0402
3M03	3198 031 01090	10Ω 5% 0.01W 0402
3M04	4822 117 13545	100Ω 1% 0402
3M05	4822 117 13545	100Ω 1% 0402
3M08	4822 117 13545	100Ω 1% 0402
3M20	4822 117 13545	100Ω 1% 0402
3M21	4822 117 13545	100Ω 1% 0402
3M24	4822 117 13545	100Ω 1% 0402
3M25	4822 117 13545	100Ω 1% 0402
3M30	4822 117 13545	100Ω 1% 0402
3M31	4822 117 13545	100Ω 1% 0402
3M35	4822 117 13545	100Ω 1% 0402
3M40	3198 031 01230	12kΩ 5% 0402
3M41	3198 031 04730	47Ω 5% 0402
3M42	3198 031 01230	12kΩ 5% 0402
3M43	3198 031 04720	4.7kΩ 5% 0402
3M46	3198 031 01530	15kΩ 5% 0.01W 0402

3M47	4822 117 13548	1kΩ 5% 0402
3M57	4822 117 13545	100Ω 1% 0402
3M58	4822 117 13545	100Ω 1% 0402
3N08	2322 706 71203	12kΩ 5% 0402
3N09	4822 117 13545	100Ω 1% 0402
3N12	3198 031 01530	15kΩ 5% 0.01W 0402
3N13	3198 031 01530	15kΩ 5% 0.01W 0402
3N14	3198 031 01530	15kΩ 5% 0.01W 0402
3N15	3198 031 01530	15kΩ 5% 0.01W 0402
3N16	3198 031 01530	15kΩ 5% 0.01W 0402
3N17	3198 031 01530	15kΩ 5% 0.01W 0402
3N18	3198 031 01530	15kΩ 5% 0.01W 0402
3N19	3198 031 01530	15kΩ 5% 0.01W 0402
3N25	3198 031 04720	4.7kΩ 5% 0402
3N27	3198 031 04720	4.7kΩ 5% 0402
3N28	3198 031 04720	4.7kΩ 5% 0402
3N29	3198 031 04720	4.7kΩ 5% 0402
3N30	3198 031 04720	4.7kΩ 5% 0402
3N31	3198 031 04720	4.7kΩ 5% 0402
3N32	3198 031 04720	4.7kΩ 5% 0402
3O00	3198 031 01050	1MΩ 5% 0402
3O01	4822 117 13543	470Ω 5% 0402
3O02	4822 117 13545	100Ω 1% 0402
3O03	4822 117 13606	10kΩ 5% 0.01W 0402
3O04	4822 117 13548	1kΩ 5% 0402
3O05	3198 031 02710	270Ω 5% 0.1W 0402
3O06	4822 117 13596	220Ω 5% 0.01W 0402
3O07	4822 117 13606	10kΩ 5% 0.01W 0402
3O08	4822 117 13606	10kΩ 5% 0.01W 0402
3O09	4822 117 13596	220Ω 5% 0.01W 0402
3O10	3198 031 02710	270Ω 5% 0.1W 0402
3O25	4822 117 13545	100Ω 1% 0402
3O26	4822 117 13545	100Ω 1% 0402
3O27	4822 117 13545	100Ω 1% 0402
3O28	4822 117 13545	100Ω 1% 0402
3P10	4822 051 30101	100Ω 5% 0.062W
3P11	4822 117 11297	100kΩ 5% 0.1W
3P12	4822 051 30102	1kΩ 5% 0.062W
3P13	4822 117 13545	100Ω 1% 0402
3P14	4822 117 11297	100kΩ 5% 0.1W
3P15	4822 051 30101	100Ω 5% 0.062W
3P16	4822 117 11297	100kΩ 5% 0.1W
3P17	4822 051 30102	1kΩ 5% 0.062W
3P18	4822 117 13545	100Ω 1% 0402
3P19	4822 117 11297	100kΩ 5% 0.1W
3P20	4822 051 30101	100Ω 5% 0.062W
3P21	4822 051 30759	75Ω 5% 0.062W
3P22	3198 031 08220	8.2kΩ 5% 0.5W
3P23	3198 031 03320	3.3kΩ 5% 0402
3P24	4822 051 30101	100Ω 5% 0.062W
3P25	4822 051 30759	75Ω 5% 0.062W
3P26	4822 051 30101	100Ω 5% 0.062W
3P27	4822 051 30759	75Ω 5% 0.062W
3P28	4822 051 30101	100Ω 5% 0.062W
3P29	4822 051 30759	75Ω 5% 0.062W
3P30	4822 051 30759	75Ω 5% 0.062W
3P31	4822 051 30101	100Ω 5% 0.062W
3P32	4822 051 30101	100Ω 5% 0.062W
3P33	4822 117 13548	1kΩ 5% 0402
3P34	4822 051 30759	75Ω 5% 0.062W
3P35	4822 051 30101	100Ω 5% 0.062W
3P36	4822 117 13548	1kΩ 5% 0402
3Q00	4822 117 13546	47Ω 5% 0402
3Q03	3198 031 07590	75Ω 5% 0402
3Q06	3198 031 07590	75Ω 5% 0402
3Q10	4822 117 13545	100Ω 1% 0402
3Q11	4822 117 13545	100Ω 1% 0402
3Q12	4822 117 13545	100Ω 1% 0402
3Q13	4822 117 13545	100Ω 1% 0402
3Q14	4822 117 13545	100Ω 1% 0402
3Q15	4822 117 13545	100Ω 1% 0402
3Q19	4822 117 13605	Jumper 0402
3Q20	4822 117 13605	Jumper 0402
3Q21	4822 117 13605	Jumper 0402
3Q22	4822 117 13605	Jumper 0402
3Q24	4822 117 13606	10kΩ 5% 0.01W 0402
3Q26	4822 117 13606	10kΩ 5% 0.01W 0402
3Q27	4822 117 13606	10kΩ 5% 0.01W 0402
3Q28	4822 117 13606	10kΩ 5% 0.01W 0402
3Q31	3198 031 04720	4.7kΩ 5% 0402
3Q32	3198 031 04720	4.7kΩ 5% 0402
3Q33	4822 117 13546	47Ω 5% 0402
3Q34	2322 705 70399	39Ω 5% 0402
3Q35	4822 117 13546	47Ω 5% 0402
3Q36	2322 705 70399	39Ω 5% 0402
3Q37	4822 117 13546	47Ω 5% 0402
3Q38	4822 117 13546	47Ω 5% 0402
3Q39	4822 117 13546	47Ω 5% 0402
3Q41	4822 117 13546	47Ω 5% 0402
3Q43	4822 117 13546	47Ω 5% 0402
3Q45	4822 117 13546	47Ω 5% 0402
3Q47	4822 117 13546	47Ω 5% 0402
3Q49	4822 117 13546	47Ω 5% 0402
3Q51	4822 117 13546	47Ω 5% 0402
3Q53	4822 117 13546	47Ω 5% 0402
3Q55	4822 117 13546	47Ω 5% 0402
3Q57	4822 117 13546	47Ω 5% 0402
3Q59	4822 117 13546	47Ω 5% 0402
3Q61	4822 117 13546	47Ω 5% 0402
3Q63	4822 117 13546	47Ω 5% 0402
3Q70	4822 117 13606	10kΩ 5% 0.01W 0402
3R00	4822 117 13548	1kΩ 5% 0402
3R01	4822 117 13548	1kΩ 5% 0402
3R02	4822 117 13546	47Ω 5% 0402
3R03	4822 117 13546	47Ω 5% 0402
3R04	4822 117 13546	47Ω 5% 0402
3R05	4822 117 13546	47Ω 5% 0402
3R06	4822 117 13546	47Ω 5% 0402
3R07	4822 117 13546	47Ω 5% 0402
3R08	4822 117 13546	47Ω 5% 0402
3R09	4822 117 13546	47Ω 5% 0402
3R10	4822 117 13546	47Ω 5% 0402
3R11	4822 117 13546	47Ω 5% 0402
3R12	4822 117 13546	47Ω 5% 0402
3R13	4822 117 13546	47Ω 5% 0402
3R14	4822 117 13546	47Ω 5% 0402
3R15	4822 117 13546	47Ω 5% 0402
3R16	4822 117 13546	47Ω 5% 0402
3R17	4822 117 13546	47Ω 5% 0402
3R19	4822 117 13546	47Ω 5% 0402
3R22	3198 031 04720	4.7kΩ 5% 0402
3R39	4822 117 13545	100Ω 1% 0402
3R42	4822 117 13545	100Ω 1% 0402
3R44	4822 117 13606	10kΩ 5% 0.01W 0402
3R46	4822 117 13606	10kΩ 5% 0.01W 0402
3R47	4822 117 13606	10kΩ 5% 0.01W 0402
3R48	3198 031 04720	4.7kΩ 5% 0402
3R50	3198 031 02290	22Ω 5% 0.1W 0402
3R51	3198 031 02290	22Ω 5% 0.1W 0402
3R52	3198 031 02290	22Ω 5% 0.1W 0402
3R53	3198 031 02290	22Ω 5% 0.1W 0402
3R54	3198 031 02290	22Ω 5% 0.1W 0402
3R55	3198 031 02290	22Ω 5% 0.1W 0402
3R56	3198 031 02290	22Ω 5% 0.1W 0402
3R57	3198 031 02290	22Ω 5% 0.1W 0402
3R58	3198 031 02290	22Ω 5% 0.1W 0402
3R59	3198 031 02290	22Ω 5% 0.1W 0402
3R60	3198 031 02290	22Ω 5% 0.1W 0402
3R61	3198 031 02290	22Ω 5% 0.1W 0402
3R62	3198 031 02290	22Ω 5% 0.1W 0402
3R63	3198 031 02290	22Ω 5% 0.1W 0402
3R64	3198 031 02290	22Ω 5% 0.1W 0402
3R65	3198 031 02290	22Ω 5% 0.1W 0402
3R66	4822 117 13545	100Ω 1% 0402
3R67	4822 117 13548	1kΩ 5% 0402
3R68	4822 117 13548	1kΩ 5% 0402
3R71	4822 117 13546	47Ω 5% 0402
3R72	4822 117 13546	47Ω 5% 0402
3R73	3198 031 02290	22Ω 5% 0.1W 0402
3R74	3198 031 02290	22Ω 5% 0.1W 0402
3R75	4822 117 13548	1kΩ 5% 0402
3R85	4822 117 13546	47Ω 5% 0402
3S13	2322 734 63309	33Ω 1% 0.1W 0805
3S14	4822 117 13548	1kΩ 5% 0402
3S15	3198 031 02240	220kΩ 5% 0.1W 0402
3S16	2322 734 63309	33Ω 1% 0.1W 0805
3S17	3198 031 02240	220kΩ 5% 0.1W 0402
3S19	4822 117 11297	100kΩ 5% 0.1W
3S20	4822 117 13606	10kΩ 5% 0.01W 0402
3S21	3198 031 06840	680kΩ 5% 0.01W 0402
3S22	4822 117 13606	10kΩ 5% 0.01W 0402
3S23	4822 117 13548	1kΩ 5% 0402
3S24	4822 117 13606	10kΩ 5% 0.01W 0402
3S46	4822 117 11297	100kΩ 5% 0.1W
3S49	2322 734 63309	33Ω 1% 0.1W 0805
3S63	4822 117 13548	1kΩ 5% 0402
3S64	3198 031 01510	150Ω 5% 0.01W 0402
3S65	4822 117 13596	220Ω 5% 0.01W 0402
3S66	4822 117 13606	10kΩ 5% 0.01W 0402
3S67	3198 031 02240	220kΩ 5% 0.1W 0402
3S68	4822 117 11297	100kΩ 5% 0.1W
3S69	2322 734 63309	33Ω 1% 0.1W 0805
3S71	4822 117 13548	1kΩ 5% 0402
3S72	3198 031 01510	150Ω 5% 0.01W 0402
3S73	4822 117 13596	220Ω 5% 0.01W 0402
3S74	4822 117 13606	10kΩ 5% 0.01W 0402
3S75	3198 031 02240	220kΩ 5% 0.1W 0402
3S95	4822 117 13606	10kΩ 5% 0.01W 0402
3S96	4822 117 13606	10kΩ 5% 0.01W 0402
3T04	4822 117 13545	100Ω 1% 0402
3T06	4822 117 13545	100Ω 1% 0402
3T07	4822 117 13545	100Ω 1% 0402
3T09	4822 117 13545	100Ω 1% 0402
3T12	4822 117 13606	10kΩ 5% 0.01W 0402
3T21	4822 117 13602	2.2kΩ 5% 0.01W 0402
3T22	3198 031 02720	2.7kΩ 5% 0.01W 0402
3T23	3198 031 02710	270Ω 5% 0.1W 0402
3T24	3198 031 03390	33Ω 1% 0402
3T25	3198 031 03390	33Ω 1% 0402
3T26	4822 117 13603	33kΩ 5% 0402
3T28	4822 117 13601	22kΩ 5% 0402
3T29	4822 117 13602	2.2kΩ 5% 0.01W 0402
3U01	4822 117 13606	10kΩ 5% 0.01W 0402
3U02	4822 117 13606	10kΩ 5% 0.01W 0402
3U03	4822 117 13606	10kΩ 5% 0.01W 0402
3U04	2322 706 71002	1kΩ 1% 0402
3U05	3198 031 02720	2.7kΩ 5% 0.01W 0402
3U06	3198 031 04720	4.7kΩ 5% 0402
3U07▲	5322 117 11726	10Ω 5%
3U08▲	5322 117 11726	10Ω 5%
3U09	4822 117 13548	1kΩ 5% 0402
3U10	3198 031 02720	2.7kΩ 5% 0.01W 0402
3U11	2322 706 71002	1kΩ 1% 0402
3U12	2322 706 73901	390Ω 1% 0402
3U13	2322 706 71002	1kΩ 1% 0402
3U14	4822 117 13548	1kΩ 5% 0402
3U15	4822 117 11297	100kΩ 5% 0.1W
3U16	3198 031 02720	2.7kΩ 5% 0.01W 0402
3U17	4822 117 13548	1kΩ 5% 0402
3U21	4822 117 13601	22kΩ 5% 0402
3U22	4822 117 13601	22kΩ 5% 0402
3U23	4822 117 13601	22kΩ 5% 0402
3U24	4822 117 13603	33kΩ 5% 0402
3U25	4822 117 13603	33kΩ 5% 0402
3U26	4822 117 13601	22kΩ 5% 0402
3U27	2322 706 75601	560Ω 1% 0402
3U28	2322 706 72702	2.7kΩ 1% 0402
3U29	3198 031 06820	6.8kΩ 5% 0.01W 0402
3U30	4822 117 13601	22kΩ 5% 0402
3U31	4822 117 11297	100kΩ 5% 0.1W
3U32▲	5322 117 11726	10Ω 5%
3U33	4822 117 11297	100kΩ 5% 0.1W
3U37	3198 031 06820	6.8kΩ 5% 0.01W 0402
3U38	3198 031 06820	6.8kΩ 5% 0.01W 0402
3U39	3198 031 06820	6.8kΩ 5% 0.01W 0402
3U40	4822 117 13548	1kΩ 5% 0402
3U41	4822 117 13548	1kΩ 5% 0402
3U42	4822 117 13548	1kΩ 5% 0402
3U45	4822 051 30109	10Ω 5% 0.062W
3U46	4822 117 13613	2.2Ω 5% 0603
3U47	4822 051 30109	10Ω 5% 0.062W
3U48	4822 117 13613	2.2Ω 5% 0603
3U49	4822 051 30109	10Ω 5% 0.062W
3U50	4822 117 13613	2.2Ω 5% 0603
3U51	4822 117 13545	100Ω 1% 0402
3U54	4822 051 30109	10Ω 5% 0.062W
3U55	4822 051 30109	10Ω 5% 0.062W
3U56	4822 051 30109	10Ω 5% 0.062W
3U61	4822 117 13606	10kΩ 5% 0.01W 0402
3U66	4822 117 13545	100Ω 1% 0402
3U67	4822 117 13548	1kΩ 5% 0402
3U68	4822 117 13545	100Ω 1% 0402
3U69	4822 117 13545	100Ω 1% 0402
3U73	4822 117 13596	220Ω 5% 0.01W 0402
3U74	4822 117 13606	10kΩ 5% 0.01W 0402
3U75	3198 031 01510	150Ω 5% 0.01W 0402
3U76	4822 117 13596	220Ω 5% 0.01W 0402
3U77	4822 117 13606	10kΩ 5% 0.01W 0402
3U78	4822 117 13545	100Ω 1% 0402
3U79	3198 031 01090	10Ω 5% 0.01W 0402
3U80	4822 117 13606	10kΩ 5% 0.01W 0402
3U96	4822 117 13608	4.7Ω 5% 0603 0.62W
3U97	4822 117 13608	4.7Ω 5% 0603 0.62W
3U98	4822 117 13608	4.7Ω 5% 0603 0.62W
3UA7	4822 117 13606	10kΩ 5% 0.01W 0402
3UA8	3198 031 01510	150Ω 5% 0.01W 0402
3UB1	4822 117 13601	22kΩ 5% 0402
3UB2	4822 117 13601	22kΩ 5% 0402
3UB3	4822 117 13548	1kΩ 5% 0402
3UB4	4822 117 13606	10kΩ 5% 0.01W 0402
3UB5	4822 117 13543	470Ω 5% 0402
3UB6	4822 117 13601	22kΩ 5% 0402
3UB7	4822 117 11297	100kΩ 5% 0.1W
3UB8	4822 117 13602	2.2kΩ 5% 0.01W 0402
3UB9	4822 117 13605	Jumper 0402
3UC1	4822 117 13605	Jumper 0402
3UC2	2322 706 71002	1kΩ 1% 0402
3UC4	4822 117 13605	Jumper 0402
3V00	3198 031 02290	22Ω 5% 0.1W 0402
3V01	3198 031 02290	22Ω 5% 0.1W 0402
3V02	3198 031 02290	22Ω 5% 0.1W 0402
3V03	3198 031 02290	22Ω 5% 0.1W 0402
3V04	3198 031 02290	22Ω 5% 0.1W 0402
3V05	3198 031 02290	22Ω 5% 0.1W 0402
3V06	3198 031 02290	22Ω 5% 0.1W 0402
3V07	3198 031 02290	22Ω 5% 0.1W 0402
3V08	3198 031 02290	22Ω 5% 0.1W 0402
3V09	3198 031 02290	22Ω 5% 0.1W 0402
3V10	3198 031 02290	22Ω 5% 0.1W 0402
3V11	3198 031 02290	22Ω 5% 0.1W 0402
3V12	3198 031 02290	22Ω 5% 0.1W 0402
3V13	3198 031 02290	22Ω 5% 0.1W 0402

3V14	3198 031 02290	22Ω 5% 0.1W 0402
3V15	3198 031 02290	22Ω 5% 0.1W 0402
3V16	3198 031 02290	22Ω 5% 0.1W 0402
3V17	3198 031 02290	22Ω 5% 0.1W 0402
3V18	3198 031 02290	22Ω 5% 0.1W 0402
3V19	3198 031 02290	22Ω 5% 0.1W 0402
3V20	3198 031 02290	22Ω 5% 0.1W 0402
3V21	3198 031 02290	22Ω 5% 0.1W 0402
3V22	3198 031 02290	22Ω 5% 0.1W 0402
3V23	3198 031 02290	22Ω 5% 0.1W 0402
3V24	2322 706 76801	680Ω 1% 0402
3V25	2322 706 73301	330Ω 1% 0402
3V26	2322 706 75601	560Ω 1% 0402
3V27	2322 706 75601	560Ω 1% 0402
3V32	3198 031 02290	22Ω 5% 0.1W 0402
3V33	3198 031 02290	22Ω 5% 0.1W 0402
3V34	3198 031 02290	22Ω 5% 0.1W 0402
3V35	3198 031 02290	22Ω 5% 0.1W 0402
3V36	3198 031 02290	22Ω 5% 0.1W 0402
3V37	3198 031 02290	22Ω 5% 0.1W 0402
3V38	3198 031 02290	22Ω 5% 0.1W 0402
3V39	3198 031 02290	22Ω 5% 0.1W 0402
3V40	3198 031 02290	22Ω 5% 0.1W 0402
3V41	3198 031 02290	22Ω 5% 0.1W 0402
3V42	3198 031 02290	22Ω 5% 0.1W 0402
3V43	3198 031 02290	22Ω 5% 0.1W 0402
3V44	4822 117 13545	100Ω 1% 0402
3V45	3198 031 01810	180Ω 5% 0402
3V46	3198 031 01810	180Ω 5% 0402
3V78	4822 117 13548	1kΩ 5% 0402
3W03	4822 117 13545	100Ω 1% 0402
3W05	4822 117 13545	100Ω 1% 0402
3W13	4822 117 13606	10kΩ 5% 0.01W 0402
3W14	4822 117 13602	2.2kΩ 5% 0.01W 0402
3W15	3198 031 02720	2.7kΩ 5% 0.01W 0402
3W16	3198 031 02710	270Ω 5% 0.1W 0402
3W17	3198 031 03390	33Ω 1% 0402
3W18	3198 031 03390	33Ω 1% 0402
3W20	4822 117 13603	33kΩ 5% 0402
3W22	4822 117 13601	22kΩ 5% 0402
3W23	4822 117 13602	2.2kΩ 5% 0.01W 0402
9A10	4822 117 13605	Jumper 0402
9A11	4822 117 13605	Jumper 0402
9A12	4822 117 13605	Jumper 0402
9A23	4822 117 13605	Jumper 0402
9A51	4822 117 13605	Jumper 0402
9A53	4822 117 13605	Jumper 0402
9A55	4822 117 13605	Jumper 0402
9A57	4822 117 13605	Jumper 0402
9B14	4822 117 13605	Jumper 0402
9B15	4822 117 13605	Jumper 0402
9B17	4822 117 13605	Jumper 0402
9B19	4822 117 13605	Jumper 0402
9B21	4822 117 13605	Jumper 0402
9B23	4822 117 13605	Jumper 0402
9C01	4822 051 20008	Jumper 0805
9C03	4822 051 20008	Jumper 0805
9C23	4822 117 13605	Jumper 0402
9C51	4822 117 13605	Jumper 0402
9C53	4822 117 13605	Jumper 0402
9C55	4822 117 13605	Jumper 0402
9C57	4822 117 13605	Jumper 0402
9C59	4822 117 13605	Jumper 0402
9E14	4822 117 13545	100Ω 1% 0402
9E16	4822 117 13605	Jumper 0402
9E19	4822 117 13605	Jumper 0402
9E21	4822 117 13605	Jumper 0402
9E29	4822 117 13605	Jumper 0402
9E31	4822 117 13605	Jumper 0402
9E35	4822 117 13605	Jumper 0402
9E37	4822 117 13605	Jumper 0402
9E38	4822 117 13605	Jumper 0402
9E45	4822 117 13605	Jumper 0402
9E46	4822 117 13605	Jumper 0402
9E55	4822 117 13605	Jumper 0402
9E56	4822 117 13605	Jumper 0402
9E57	4822 117 13605	Jumper 0402
9E58	4822 117 13605	Jumper 0402
9E59	4822 117 13605	Jumper 0402
9E60	4822 117 13605	Jumper 0402
9E61	4822 117 13605	Jumper 0402
9E62	4822 117 13605	Jumper 0402
9E63	4822 117 13605	Jumper 0402
9E64	4822 117 13605	Jumper 0402
9E65	4822 117 13605	Jumper 0402
9E66	4822 117 13605	Jumper 0402
9E67	4822 117 13605	Jumper 0402
9E68	4822 117 13605	Jumper 0402
9E69	4822 117 13605	Jumper 0402
9E70	4822 117 13605	Jumper 0402
9E71	4822 117 13545	100Ω 1% 0402
9E72	4822 117 13605	Jumper 0402
9E73	4822 117 13545	100Ω 1% 0402
9E74	4822 117 13605	Jumper 0402

9E75	4822 117 13605	Jumper 0402
9E76	4822 117 13605	Jumper 0402
9E77	4822 117 13605	Jumper 0402
9E78	4822 117 13605	Jumper 0402
9E79	4822 117 13605	Jumper 0402
9E80	4822 117 13605	Jumper 0402
9E86	4822 117 13605	Jumper 0402
9E87	4822 117 13605	Jumper 0402
9E88	4822 117 13605	Jumper 0402
9E90	4822 117 13605	Jumper 0402
9E92	4822 117 13605	Jumper 0402
9E94	4822 117 13605	Jumper 0402
9E96	4822 117 13605	Jumper 0402
9F00	4822 117 13605	Jumper 0402
9F01	4822 117 13605	Jumper 0402
9F04	4822 117 13605	Jumper 0402
9F05	4822 117 13605	Jumper 0402
9F09	4822 117 13605	Jumper 0402
9F21	4822 117 13605	Jumper 0402
9F22	4822 117 13605	Jumper 0402
9F23	4822 117 13605	Jumper 0402
9F24	4822 117 13605	Jumper 0402
9F25	4822 117 13605	Jumper 0402
9F27	4822 117 13605	Jumper 0402
9F30	4822 117 13605	Jumper 0402
9F31	4822 117 13605	Jumper 0402
9G00	4822 117 13605	Jumper 0402
9G01	4822 117 13605	Jumper 0402
9H01	4822 117 13605	Jumper 0402
9H02	4822 117 13605	Jumper 0402
9H03	4822 117 13605	Jumper 0402
9H05	4822 117 13605	Jumper 0402
9H06	4822 117 13605	Jumper 0402
9H07	4822 117 13605	Jumper 0402
9H08	4822 117 13605	Jumper 0402
9H09	4822 117 13605	Jumper 0402
9H10	4822 117 13605	Jumper 0402
9H11	4822 117 13605	Jumper 0402
9H12	4822 117 13605	Jumper 0402
9H13	4822 117 13605	Jumper 0402
9H14	4822 117 13605	Jumper 0402
9H15	4822 117 13605	Jumper 0402
9H16	4822 117 13605	Jumper 0402
9H18	4822 117 13605	Jumper 0402
9H19	4822 117 13605	Jumper 0402
9H20	4822 117 13605	Jumper 0402
9H21	4822 117 13605	Jumper 0402
9H22	4822 117 13605	Jumper 0402
9H23	4822 117 13605	Jumper 0402
9H24	4822 117 13605	Jumper 0402
9H26	4822 117 13605	Jumper 0402
9H27	4822 117 13605	Jumper 0402
9H29	4822 117 13605	Jumper 0402
9H30	4822 117 13605	Jumper 0402
9H32	4822 117 13605	Jumper 0402
9H33	4822 117 13605	Jumper 0402
9H34	4822 117 13605	Jumper 0402
9H50	4822 117 13605	Jumper 0402
9H51	4822 117 13605	Jumper 0402
9H52	4822 117 13605	Jumper 0402
9H53	4822 117 13605	Jumper 0402
9H54	4822 117 13605	Jumper 0402
9H55	4822 117 13605	Jumper 0402
9H56	4822 117 13605	Jumper 0402
9H57	4822 117 13605	Jumper 0402
9H59	4822 117 13605	Jumper 0402
9I20	4822 117 13605	Jumper 0402
9I42	4822 117 13605	Jumper 0402
9I91	4822 051 20008	Jumper 0805
9I92	4822 051 20008	Jumper 0805
9I94	4822 051 20008	Jumper 0805
9K01	4822 117 13605	Jumper 0402
9L01	4822 117 13605	Jumper 0402
9L02	4822 117 13605	Jumper 0402
9L40	4822 117 13605	Jumper 0402
9L41	4822 117 13605	Jumper 0402
9LA0	4822 117 13605	Jumper 0402
9LA1	4822 117 13605	Jumper 0402
9LA7	4822 117 13605	Jumper 0402
9LA8	4822 117 13605	Jumper 0402
9LC7	4822 117 13605	Jumper 0402
9M02	4822 051 20008	Jumper 0805
9M03	4822 051 20008	Jumper 0805
9M07	4822 117 13605	Jumper 0402
9M09	4822 117 13605	Jumper 0402
9N23	4822 117 13605	Jumper 0402
9N24	4822 117 13605	Jumper 0402
9O16	4822 117 13605	Jumper 0402
9P10	4822 117 13605	Jumper 0402
9P21	4822 117 13605	Jumper 0402
9P22	4822 117 13605	Jumper 0402
9P23	4822 117 13605	Jumper 0402
9Q06	4822 117 13605	Jumper 0402
9R02	4822 117 13605	Jumper 0402

9R03	4822 117 13605	Jumper 0402
9R04	4822 117 13605	Jumper 0402
9R05	4822 117 13605	Jumper 0402
9R06	4822 117 13605	Jumper 0402
9R13	4822 117 13605	Jumper 0402
9R15	4822 117 13605	Jumper 0402
9R17	4822 117 13605	Jumper 0402
9R20	4822 117 13605	Jumper 0402
9R21	4822 117 13605	Jumper 0402
9R22	4822 117 13605	Jumper 0402
9R23	4822 117 13605	Jumper 0402
9R26	4822 117 13605	Jumper 0402
9R50	4822 117 13605	Jumper 0402
9R51	4822 117 13605	Jumper 0402
9T05	4822 117 13605	Jumper 0402
9T06	4822 117 13605	Jumper 0402
9T11	4822 117 13605	Jumper 0402
9U01	4822 117 13605	Jumper 0402
9U02	4822 117 13605	Jumper 0402
9U03	4822 117 13605	Jumper 0402
9U04	4822 051 20008	Jumper 0805
9U05	4822 051 20008	Jumper 0805
9U07	4822 051 20008	Jumper 0805
9U08	4822 051 20008	Jumper 0805
9U09	4822 051 20008	Jumper 0805
9U10	4822 051 20008	Jumper 0805
9W10	4822 117 13605	Jumper 0402
9Y03	4822 117 13605	Jumper 0402
9Y04	4822 117 13605	Jumper 0402
9Y05	4822 117 13605	Jumper 0402

5A01	2422 549 44197	Bead 220Ω at 100MHz
5A02	2422 549 44197	Bead 220Ω at 100MHz
5A03	2422 549 44197	Bead 220Ω at 100MHz
5A33	2422 549 44197	Bead 220Ω at 100MHz
5A34	2422 549 44197	Bead 220Ω at 100MHz
5A36	2422 549 44197	Bead 220Ω at 100MHz
5A52	2422 549 44197	Bead 220Ω at 100MHz
5A53	2422 549 44197	Bead 220Ω at 100MHz
5A54	2422 549 44197	Bead 220Ω at 100MHz
5A56	2422 549 44197	Bead 220Ω at 100MHz
5A57	3198 018 33370	0.33µH 10% 0805
5B00	2422 549 43769	Bead 30Ω at 100MHz
5B01	2422 549 43769	Bead 30Ω at 100MHz
5B10	2422 549 44197	Bead 220Ω at 100MHz
5B11	2422 549 44197	Bead 220Ω at 100MHz
5B12	2422 549 44197	Bead 220Ω at 100MHz
5B13	2422 549 44197	Bead 220Ω at 100MHz
5B14	4822 157 11506	Bead 120Ω at 100MHz
5B15	4822 157 11506	Bead 120Ω at 100MHz
5B16	4822 157 11506	Bead 120Ω at 100MHz
5B17	2422 549 44197	Bead 220Ω at 100MHz
5B18	4822 157 11506	Bead 120Ω at 100MHz
5C01	2422 549 44197	Bead 220Ω at 100MHz
5C03	2422 549 44197	Bead 220Ω at 100MHz
5C31	2422 549 44197	Bead 220Ω at 100MHz
5C33	2422 549 44197	Bead 220Ω at 100MHz
5C34	2422 549 44197	Bead 220Ω at 100MHz
5C36	2422 549 44197	Bead 220Ω at 100MHz
5C52	2422 549 44197	Bead 220Ω at 100MHz
5C53	2422 549 44197	Bead 220Ω at 100MHz
5C54	2422 549 44197	Bead 220Ω at 100MHz
5C55	2422 549 44197	Bead 220Ω at 100MHz
5C56	2422 549 44197	Bead 220Ω at 100MHz
5C57	3198 018 33370	0.33µH 10% 0805
5E04	2422 549 43062	Bead 600Ω at 100MHz
5F10	2422 549 44197	Bead 220Ω at 100MHz
5G00	3198 018 90050	Bead 1kΩ at 100MHz
5G01	2422 549 42896	Bead 120Ω 100MHz
5G02	2422 549 42896	Bead 120Ω 100MHz
5G10	3198 018 90050	Bead 1kΩ at 100MHz
5G11	3198 018 90050	Bead 1kΩ at 100MHz
5G12	3198 018 90050	Bead 1kΩ at 100MHz
5G13	3198 018 90050	Bead 1kΩ at 100MHz
5G14	3198 018 90050	Bead 1kΩ at 100MHz
5G15	3198 018 90050	Bead 1kΩ at 100MHz
5GA0	2422 549 45325	Bead 67Ω at 100MHz
5GA1	2422 549 45325	Bead 67Ω at 100MHz
5GA2	2422 549 45325	Bead 67Ω at 100MHz
5GA3	2422 549 45325	Bead 67Ω at 100MHz
5GA4	2422 549 45325	Bead 67Ω at 100MHz
5GA5	2422 549 45325	Bead 67Ω at 100MHz
5GA6	2422 549 45325	Bead 67Ω at 100MHz
5GA7	2422 549 45325	Bead 67Ω at 100MHz
5GA8	2422 549 45325	Bead 67Ω at 100MHz
5GA9	2422 549 45325	Bead 67Ω at 100MHz
5GB2	2422 549 44197	Bead 220Ω at 100MHz
5GB3	2422 549 44197	Bead 220Ω at 100MHz
5GB4	2422 549 44197	Bead 220Ω at 100MHz
5H01	2422 549 45325	Bead 67Ω at 100MHz
5H02	2422 549 45325	Bead 67Ω at 100MHz

5H05	2422 549 43769	Bead 30Ω at 100MHz
5I01	2422 549 42896	Bead 120Ω 100MHz
5I02	2422 549 42896	Bead 120Ω 100MHz
5J00	2422 549 42896	Bead 120Ω 100MHz
5J01	2422 549 42896	Bead 120Ω 100MHz
5J02	2422 549 42896	Bead 120Ω 100MHz
5J03	2422 549 42896	Bead 120Ω 100MHz
5J04	2422 549 42896	Bead 120Ω 100MHz
5J05	2422 549 42896	Bead 120Ω 100MHz
5J06	2422 549 42896	Bead 120Ω 100MHz
5J07	2422 549 42896	Bead 120Ω 100MHz
5L50	2422 549 43769	Bead 30Ω at 100MHz
5LA1	2422 549 43769	Bead 30Ω at 100MHz
5LA2	2422 549 43769	Bead 30Ω at 100MHz
5LA3	2422 549 43769	Bead 30Ω at 100MHz
5LA4	2422 549 43062	Bead 600Ω at 100MHz
5LN0	2422 549 43769	Bead 30Ω at 100MHz
5LN1	2422 549 43769	Bead 30Ω at 100MHz
5LN2	2422 549 43769	Bead 30Ω at 100MHz
5LN3	2422 549 43769	Bead 30Ω at 100MHz
5LN4	2422 549 44197	Bead 220Ω at 100MHz
5LN5	2422 549 44197	Bead 220Ω at 100MHz
5LN6	2422 549 44197	Bead 220Ω at 100MHz
5LN7	2422 549 44197	Bead 220Ω at 100MHz
5LN8	2422 549 43769	Bead 30Ω at 100MHz
5LN9	2422 549 43769	Bead 30Ω at 100MHz
5M00	2422 549 44197	Bead 220Ω at 100MHz
5M01	2422 549 44197	Bead 220Ω at 100MHz
5M02	2422 549 44197	Bead 220Ω at 100MHz
5M03	2422 549 44197	Bead 220Ω at 100MHz
5M04	2422 549 44197	Bead 220Ω at 100MHz
5M05	3198 018 90050	Bead 1kΩ at 100MHz
5M06	2422 549 44197	Bead 220Ω at 100MHz
5M07	2422 549 44197	Bead 220Ω at 100MHz
5M08	2422 549 44197	Bead 220Ω at 100MHz
5M09	2422 549 44197	Bead 220Ω at 100MHz
5M10	2422 549 42896	Bead 120Ω 100MHz
5M11	2422 549 42896	Bead 120Ω 100MHz
5M12	4822 051 30109	10Ω 5% 0.062W
5M14	2422 549 42896	Bead 120Ω 100MHz
5M15	2422 549 42896	Bead 120Ω 100MHz
5M17	2422 549 42896	Bead 120Ω 100MHz
5M18	2422 549 42896	Bead 120Ω 100MHz
5M19	2422 549 42896	Bead 120Ω 100MHz
5M20	2422 549 42896	Bead 120Ω 100MHz
5M21	2422 549 42896	Bead 120Ω 100MHz
5M23	2422 549 44197	Bead 220Ω at 100MHz
5M24	2422 549 44197	Bead 220Ω at 100MHz
5M25	2422 549 44197	Bead 220Ω at 100MHz
5M26	2422 549 44197	Bead 220Ω at 100MHz
5M27	2422 549 44197	Bead 220Ω at 100MHz
5M28	2422 549 44197	Bead 220Ω at 100MHz
5M29	2422 549 44197	Bead 220Ω at 100MHz
5N00	2422 549 44197	Bead 220Ω at 100MHz
5N01	2422 549 43769	Bead 30Ω at 100MHz
5N02	2422 549 43769	Bead 30Ω at 100MHz
5O00	2422 549 44197	Bead 220Ω at 100MHz
5O01	2422 549 44197	Bead 220Ω at 100MHz
5Q01	2422 549 43769	Bead 30Ω at 100MHz
5Q02	2422 549 43769	Bead 30Ω at 100MHz
5Q03	2422 549 43769	Bead 30Ω at 100MHz
5Q04	2422 549 43769	Bead 30Ω at 100MHz
5Q06	3198 018 52280	2.2μF 10% 1008
5Q20	2422 549 44197	Bead 220Ω at 100MHz
5R00	2422 549 44197	Bead 220Ω at 100MHz
5R01	2422 549 44197	Bead 220Ω at 100MHz
5R02	2422 549 44197	Bead 220Ω at 100MHz
5R03	2422 549 44197	Bead 220Ω at 100MHz
5R04	2422 549 44197	Bead 220Ω at 100MHz
5R05	2422 549 44197	Bead 220Ω at 100MHz
5R06	2422 549 44197	Bead 220Ω at 100MHz
5T01	2422 535 94134	10μH 20% 0805
5T04	2422 549 44197	Bead 220Ω at 100MHz
5T05	2422 549 44197	Bead 220Ω at 100MHz
5T06	2422 549 44197	Bead 220Ω at 100MHz
5T10	2422 549 44197	Bead 220Ω at 100MHz
5T11	2422 549 44197	Bead 220Ω at 100MHz
5T12	4822 157 11716	Bead 30Ω at 100MHz
5U01	2422 536 00779	10μH 20%
5U02	2422 536 00779	10μH 20%
5U03	2422 536 00779	10μH 20%
5U05	2422 536 00671	10μH 20%
5U06	2422 536 00671	10μH 20%
5U09	2422 549 44197	Bead 220Ω at 100MHz
5U10	2422 549 44197	Bead 220Ω at 100MHz
5U11	2422 549 44197	Bead 220Ω at 100MHz
5U12	2422 549 44197	Bead 220Ω at 100MHz
5U13	2422 549 44197	Bead 220Ω at 100MHz
5U14	2422 549 44197	Bead 220Ω at 100MHz
5U15	2422 549 44197	Bead 220Ω at 100MHz
5U17	2422 549 44197	Bead 220Ω at 100MHz
5U18	2422 549 44197	Bead 220Ω at 100MHz
5U19	2422 549 44197	Bead 220Ω at 100MHz
5U21	2422 536 00671	10μH 20%
5V01	2422 549 44197	Bead 220Ω at 100MHz
5W03	2422 549 44197	Bead 220Ω at 100MHz
5W04	2422 549 44197	Bead 220Ω at 100MHz
5W05	2422 549 44197	Bead 220Ω at 100MHz
5W06	4822 157 11716	Bead 30Ω at 100MHz

6A52	9340 552 30115	BA591
6A53	4822 130 11397	BAS316
6B00	9340 566 10115	BAV99S
6B01	4822 130 10328	BAV99W
6B02	4822 130 11416	PDZ6.8B
6B03	4822 130 10328	BAV99W
6B04	4822 130 11416	PDZ6.8B
6B05	4822 130 10328	BAV99W
6B06	4822 130 11416	PDZ6.8B
6B07	4822 130 10328	BAV99W
6B08	4822 130 11416	PDZ6.8B
6B09	4822 130 10328	BAV99W
6B10	4822 130 11416	PDZ6.8B
6B12	9340 566 10115	BAV99S
6B20	4822 130 11397	BAS316
6B21	4822 130 11397	BAS316
6B22	4822 130 11397	BAS316
6B23	4822 130 11397	BAS316
6C52	9340 552 30115	BA591
6C53	4822 130 11397	BAS316
6E25	9340 566 10115	BAV99S
6F01	4822 130 11397	BAS316
6F02	4822 130 11397	BAS316
6F03	4822 130 11397	BAS316
6F04	4822 130 11397	BAS316
6F05	4822 130 11397	BAS316
6F61	4822 130 80622	BAT54
6F62	4822 130 11397	BAS316
6GA1	9322 213 54685	SML-010MTN
6GA3	3198 020 55680	BZX384-C5V6
6H00	9322 213 54685	SML-010MTN
6H01	4822 130 11397	BAS316
6H03	4822 130 11397	BAS316
6I02	4822 130 11416	PDZ6.8B
6I03	4822 130 11416	PDZ6.8B
6I04	4822 130 11416	PDZ6.8B
6I05	4822 130 11416	PDZ6.8B
6I06	4822 130 11416	PDZ6.8B
6I07	4822 130 11416	PDZ6.8B
6I32	4822 130 11416	PDZ6.8B
6I34	4822 130 11416	PDZ6.8B
6I36	4822 130 11416	PDZ6.8B
6I38	4822 130 11416	PDZ6.8B
6I42	4822 130 80622	BAT54
6I43	4822 130 10328	BAV99W
6I44	4822 130 80622	BAT54
6I60	4822 130 10328	BAV99W
6I61	4822 130 11416	PDZ6.8B
6I62	4822 130 10328	BAV99W
6I63	4822 130 11416	PDZ6.8B
6I64	4822 130 11416	PDZ6.8B
6LA0	4822 130 11397	BAS316
6LA1	4822 130 11397	BAS316
6O00	4822 130 11397	BAS316
6O01	4822 130 11397	BAS316
6P10	4822 130 11416	PDZ6.8B
6P11	4822 130 11416	PDZ6.8B
6P12	4822 130 11416	PDZ6.8B
6P13	4822 130 11416	PDZ6.8B
6P14	4822 130 11416	PDZ6.8B
6P15	4822 130 11416	PDZ6.8B
6P16	4822 130 11416	PDZ6.8B
6P17	4822 130 11416	PDZ6.8B
6P18	4822 130 11416	PDZ6.8B
6P19	9322 129 41685	BZM55-C12
6P20	4822 130 11416	PDZ6.8B
6P21	4822 130 11416	PDZ6.8B
6P22	4822 130 11416	PDZ6.8B
6P23	4822 130 11416	PDZ6.8B
6P24	4822 130 11416	PDZ6.8B
6S02	4822 130 11397	BAS316
6T01	9322 208 84685	BZG05C33
6U01	4822 130 11397	BAS316
6U02	4822 130 11397	BAS316
6U03	4822 130 11397	BAS316
6U08	9322 165 17668	STPS2L30A
6U14	4822 130 11397	BAS316
6U15	4822 130 11397	BAS316
6U16	4822 130 11397	BAS316
6U22	9322 213 54685	SML-010MTN
6U23	9322 213 54685	SML-010MTN
6U24	9322 213 54685	SML-010MTN
6U25	9322 213 54685	SML-010MTN
6U26	9340 548 58115	PDZ9.1B
6UB1	4822 130 11416	PDZ6.8B

7A00	9352 767 55557	PNX3000HL/N3
7A01	9340 425 30115	BC847BPN
7A02	3198 010 42310	BC847BW
7A03	9322 185 74668	LM324P
7A04	9322 187 67668	TS482IS
7A54	3198 010 42310	BC847BW
7A55	3198 010 42310	BC847BW
7B00	9340 560 35235	BSH112
7B01	9340 560 35235	BSH112
7B02	9322 206 25668	M24C02-WDW6P
7B03	9322 206 25668	M24C02-WDW6P
7B04	9340 560 35235	BSH112
7B05	9340 560 35235	BSH112
7B11	9352 774 45557	TDA9975EL/8/C1
7B20	9322 217 28668	LD1117DT18
7B30	3198 010 42310	BC847BW
7B31	3198 010 42310	BC847BW
7B38	4822 209 17398	LD1117DT33
7C00	9352 767 55557	PNX3000HL/N3
7C01	9340 425 30115	BC847BPN
7C02	3198 010 42310	BC847BW
7C05	9322 198 11685	L78L08ACU
7C06	9322 198 10685	LD2981CU50
7C31	9340 425 20115	BC847BS
7C54	3198 010 42310	BC847BW
7C55	3198 010 42310	BC847BW
7C56	3198 010 42310	BC847BW
7F01	3198 010 44310	PDTC114EU
7F02	9322 204 63685	NCP303LSN10
7F03	9322 204 63685	NCP303LSN10
7F04	9352 759 98118	PCA9515ADP
7F05	9322 204 63685	NCP303LSN10
7F06	9322 204 63685	NCP303LSN10
7F08	9322 204 63685	NCP303LSN10
7F09	9322 204 63685	NCP303LSN10
7F10	9352 759 98118	PCA9515ADP
7F11	9322 206 22668	M24C64-WDW6P
7F12	3198 010 42310	BC847BW
7F13	3198 010 44310	PDTC114EU
7F14	9351 749 10118	74HC4016PW
7F15	9322 204 63685	NCP303LSN10
7F16	3198 010 42310	BC847BW
7F17	3198 010 44310	PDTC114EU
7F18	9322 146 75685	TS431L
7F19	3198 010 42310	BC847BW
7F20	9322 146 75685	TS431L
7F21	3198 010 42320	BC857BW
7F50	9352 115 40118	74LVC245APW
7F51	9352 115 40118	74LVC245APW
7F52	9352 115 40118	74LVC245APW
7F53	9322 206 61671	TC58DVM82F1TGI0
7F54	9322 212 46668	CY2305SXC-1
7F55	9340 425 30115	BC847BPN
7F60	3198 010 42320	BC857BW
7F61	9340 425 20115	BC847BS
7G00	9322 214 08685	LD2985BM25
7G01	9322 144 97668	LD1117DT
7G02	9340 425 20115	BC847BS
7G03	9322 210 01668	EPCS4SI8N
7G04	9322 226 67671	EP1C12F256C7N
7G66	9340 425 20115	BC847BS
7GA2	3198 010 42310	BC847BW
7GA5	9322 204 71668	SI4835BDY
7I90	9351 884 80118	74HCT4053PW
7I94	9351 875 80118	74HCU04PW
7J00	9352 783 28557	PNX2015E/M1C02
7L40	9340 560 35235	BSH112
7L50	9322 204 09671	K4D261638F-LC40
7L51	9340 425 30115	BC847BPN
7L52	9340 425 30115	BC847BPN
7LA2	3198 010 42310	BC847BW
7LA3	3198 010 42310	BC847BW
7LA4	3198 010 42310	BC847BW
7LA5	9352 687 21165	74LVC1G126GW
7LA7	9322 206 45668	M25P05-AVMN6P
7M01	9340 425 30115	BC847BPN
7M02	3198 010 42310	BC847BW
7M03	9340 575 87118	PHD38N02LT
7M04	9322 213 50685	TS431AIL
7M05	9340 425 30115	BC847BPN
7M10	5322 130 60159	BC846B
7M12	3198 010 44310	PDTC114EU
7N00	9352 698 49518	ISP1561BM
7O00	9322 191 29671	DP83816AVNG
7P87	9340 425 20115	BC847BS
7R00	9322 223 87671	T6TE0TBG-0001
7R01	9322 214 25671	IC K4H561638F-UCB3
7R04	3198 010 42310	BC847BW
7S00	9340 425 30115	BC847BPN
7S03	3198 010 44350	BC807-25W

7S05	9340 425 30115	BC847BPN
7S06	3198 010 44350	BC807-25W
7S08	9340 425 30115	BC847BPN
7S11	9340 219 30115	BC817-25W
7S12	9340 219 30115	BC817-25W
7S24	3198 010 42320	BC857BW
7T02	9322 104 47668	L78M05CDT
7T06	5322 130 42718	BFS20
7T10	3198 010 42310	BC847BW
7U01	9322 160 70668	SI4936ADY
7U02	9322 160 70668	SI4936ADY
7U03	9322 160 70668	SI4936ADY
7U04	9322 182 77668	L6910
7U05	9322 182 77668	L6910
7U06	9322 182 77668	L6910
7U08	9340 425 20115	BC847BS
7U09	9340 425 20115	BC847BS
7U10	9340 425 20115	BC847BS
7U20	9340 425 30115	BC847BPN
7U23	3198 010 42310	BC847BW
7U25	9340 575 87118	PHD38N02LT
7U26	9322 192 16685	TS2431AI
7UB1	9340 425 10115	BC857BS
7V00	9352 787 87557	PNX8550EH/M1/S1
7V01	9322 221 77671	K4D551638F-LC40
7V02	9322 221 77671	K4D551638F-LC40
7W01	5322 130 42718	BFS20
7W10	3198 010 42310	BC847BW

External I/O Panel [BE]

-ww-

3O04	4822 051 30223	22kΩ 5% 0.062W
3O05	4822 051 30223	22kΩ 5% 0.062W
3O06	4822 051 30689	68Ω 5% 0.063W 0603
3O08	4822 051 30472	4.7Ω 5% 0.062W
3O09	4822 051 30223	22kΩ 5% 0.062W
3O10	4822 051 30223	22kΩ 5% 0.062W
3O11	4822 051 30102	1kΩ 5% 0.062W
3O13	4822 117 12925	47kΩ 1% 0.063W 0603
3O14	4822 051 30102	1kΩ 5% 0.062W
3O16	3198 021 38220	8.2kΩ 5% 0.062W 0603
3O17	4822 051 30332	3.3Ω 5% 0.062W
3O18	4822 117 13632	100kΩ 1% 0603 0.62W
3O20	4822 117 12925	47kΩ 1% 0.063W 0603
3O21	4822 117 13632	100kΩ 1% 0603 0.62W
3O23	4822 051 30102	1kΩ 5% 0.062W
3O24	4822 117 13632	100kΩ 1% 0603 0.62W
3O25	4822 051 30223	22kΩ 5% 0.062W
3O26	4822 051 30101	100Ω 5% 0.062W
3O29	4822 051 30223	22kΩ 5% 0.062W
3O33	4822 051 30223	22kΩ 5% 0.062W
3O34	4822 117 13632	100kΩ 1% 0603 0.62W
3O37	4822 051 30681	680Ω 5% 0.062W
3O40	4822 051 30101	100Ω 5% 0.062W
3O44	4822 051 30101	100Ω 5% 0.062W
3O49▲	4822 117 11151	1Ω 5%
3O51	4822 051 30759	75Ω 5% 0.062W
3O52	4822 051 30689	68Ω 5% 0.063W 0603
3O55	4822 051 30759	75Ω 5% 0.062W
3O60	4822 051 30102	1kΩ 5% 0.062W
3O61	4822 051 30759	75Ω 5% 0.062W
3O62	4822 051 30759	75Ω 5% 0.062W
3O63	4822 051 30101	100Ω 5% 0.062W
3O64	4822 051 30101	100Ω 5% 0.062W
3O66	4822 051 30101	100Ω 5% 0.062W
3O69	4822 051 30689	68Ω 5% 0.063W 0603
3O72	4822 051 30101	100Ω 5% 0.062W
3O74	4822 051 30101	100Ω 5% 0.062W
3O75	4822 051 30102	1kΩ 5% 0.062W
3O76	4822 051 30101	100Ω 5% 0.062W
3O77	4822 051 30102	1kΩ 5% 0.062W
3O78	4822 051 30101	100Ω 5% 0.062W
3O79	4822 051 30102	1kΩ 5% 0.062W
3O81	4822 051 30102	1kΩ 5% 0.062W
3O82	4822 051 30151	150Ω 5% 0.062W
3O83	4822 051 30102	1kΩ 5% 0.062W
3O97	4822 051 30151	150Ω 5% 0.062W

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5O00	4822 157 11716	Bead 30Ω at 100MHz

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6O02	9322 129 41685	BZM55-C12
6O04	4822 130 11416	PDZ6.8B
6O05	4822 130 11397	BAS316
6O06	4822 130 11397	BAS316
6O08	4822 130 11416	PDZ6.8B
6O10	4822 130 11416	PDZ6.8B
6O12	4822 130 11416	PDZ6.8B
6O14	4822 130 11416	PDZ6.8B
6O16	4822 130 11416	PDZ6.8B
6O18	4822 130 11397	BAS316
6O19	4822 130 11416	PDZ6.8B
6O21	4822 130 11416	PDZ6.8B
6O24	4822 130 11416	PDZ6.8B
6O31	4822 130 11416	PDZ6.8B
6O33	4822 130 11416	PDZ6.8B
6O34	4822 130 11416	PDZ6.8B
6O35	4822 130 11416	PDZ6.8B
6O36	4822 130 11416	PDZ6.8B
6O37	4822 130 11416	PDZ6.8B
6O38	9322 102 64685	UDZ2.7B

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7O00	9351 869 40118	74HC4053PW
7O01	5322 130 60159	BC846B
7O02	5322 130 60159	BC846B
7O03	5322 130 60159	BC846B
7O04	5322 130 60159	BC846B
7O05	5322 130 60159	BC846B
7O06	5322 130 60159	BC846B
7O07	5322 130 60159	BC846B
7O10	9351 869 40118	74HC4053PW
7O12	5322 130 60159	BC846B
7O15	5322 130 60159	BC846B
7O24	5322 130 60159	BC846B
7O25	5322 130 60159	BC846B

Side I/O Panel [D]

Various

1001	2422 026 05133	Connector SVHS 4p f
1002	4822 267 10975	Soc. CINCH f YeWhRd
1010	4822 267 31014	Soc. headphone
1M36	2422 025 17179	Connector 11p m

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2003	2022 552 05679	1µF 10% 16V 0805
2004	3198 016 36810	680pF 25V 0603
2005	2020 552 94427	100pF 5% 50V
2006	3198 016 36810	680pF 25V 0603
2007	2020 552 94427	100pF 5% 50V
2008	2238 916 15641	22nF 10% 25V 0603
2009	5322 126 11583	10nF 10% 50V 0603
2010	2238 916 15641	22nF 10% 25V 0603
2011	5322 126 11583	10nF 10% 50V 0603

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3000	4822 051 30759	75Ω 5% 0.062W
3004	4822 051 30759	75Ω 5% 0.062W
3008	4822 051 30222	2.2kΩ 5% 0.062W
3009	4822 051 30102	1kΩ 5% 0.062W
3010	4822 051 30333	33kΩ 5% 0.062W
3011	4822 051 30392	3.9Ω 5% 0.063W 0603
3012	4822 051 30102	1kΩ 5% 0.062W
3013	4822 051 30333	33kΩ 5% 0.062W
3016	4822 051 30103	10kΩ 5% 0.062W
3020	4822 051 30103	10kΩ 5% 0.062W
9004	4822 051 30008	Jumper 0603
9005	4822 051 30008	Jumper 0603
9006	4822 051 30008	Jumper 0603
9007	4822 051 30008	Jumper 0603
9008	4822 051 30008	Jumper 0603
9009	4822 051 30008	Jumper 0603
9010	4822 051 30008	Jumper 0603
9011	4822 051 30008	Jumper 0603

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6000	4822 130 11416	PDZ6.8B
6001	4822 130 11416	PDZ6.8B
6002	4822 130 11416	PDZ6.8B
6003	4822 130 11416	PDZ6.8B
6004	4822 130 11416	PDZ6.8B
6005	4822 130 11416	PDZ6.8B
6006	4822 130 11416	PDZ6.8B
6007	4822 130 11416	PDZ6.8B
6008	4822 130 11416	PDZ6.8B
6009	4822 130 11416	PDZ6.8B
6010	4822 130 11416	PDZ6.8B
6011	4822 130 11416	PDZ6.8B

Top Contol Panel [E]

Various

0345	2422 025 18753	Connector 6p m
1701	2422 128 02742	Switch tact SKQNAB
1702	2422 128 02742	Switch tact SKQNAB
1703	2422 128 02742	Switch tact SKQNAB
1704	2422 128 02742	Switch tact SKQNAB
1705	2422 128 02742	Switch tact SKQNAB
1710	2422 128 00119	Switch 2p 0.1A 12V
8345	3104 311 07041	Cable 6p/1000/6p

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3008	2322 734 66201	620Ω 1% 0805
3010	2322 734 61102	1.1kΩ 1% 0805
3011	2322 734 62002	2kΩ 1% 0805
3013	2322 734 62001	200Ω 1% 0805
3014	3198 031 03910	390Ω 1% 0402
3017	3198 021 33390	33Ω 5% 0.062W 0603
3018	3198 021 33390	33Ω 5% 0.062W 0603
3019	3198 021 33390	33Ω 5% 0.062W 0603
3020	3198 021 33390	33Ω 5% 0.062W 0603
3021	3198 021 33390	33Ω 5% 0.062W 0603
3022	3198 021 33390	33Ω 5% 0.062W 0603
3023	3198 021 33390	33Ω 5% 0.062W 0603
3024	3198 021 33390	33Ω 5% 0.062W 0603
3025	3198 021 33390	33Ω 5% 0.062W 0603
3026	3198 021 33390	33Ω 5% 0.062W 0603
3027	3198 021 33390	33Ω 5% 0.062W 0603
3028	3198 021 33390	33Ω 5% 0.062W 0603
3999	3198 031 02220	2.2kΩ 5% 0402
9000	3198 031 90010	Jumper 0402
9001	3198 031 90010	Jumper 0402
9002	3198 031 90010	Jumper 0402

LED Panel [J]

Various

1040	9322 206 81667	TSOP34836YA1
1M01	2422 025 17103	Conn. 3p m SMD
1M01	2422 025 18738	Conn. 3p m SMD no-Pb
1M20	2422 025 17441	Conn. 12p m SMD
1M20	2422 025 18736	Conn. 12p m SMD no-Pb

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2030	4822 124 23002	10µF 16V
2040	4822 124 12095	100µF 20% 16V
2060	5322 124 41945	22µF 20% 35V
2070	4822 126 14583	470nF 10% 16V 0805
2071	4822 124 23002	10µF 16V

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3011	4822 117 13545	100Ω 1% 0402
3020	4822 117 13606	10kΩ 5% 0.01W 0402
3030	3198 031 04720	4.7kΩ 5% 0402
3031	4822 117 11297	100kΩ 5% 0.1W
3031	4822 117 12889	270kΩ 1% 0.063W 0603
3031	4822 117 13632	100kΩ 1% 0603 0.62W
3032	2322 705 70184	180Ω 5% 0402
3033	4822 051 30102	1kΩ 5% 0.062W
3033	4822 117 13548	1kΩ 5% 0402
3034	4822 117 13548	1kΩ 5% 0402
3035	3198 031 04720	4.7kΩ 5% 0402
3036	3198 031 02280	2.2Ω 5% 0.1W 0402
3037	3198 031 02280	2.2Ω 5% 0.1W 0402
3040	4822 117 13597	330Ω 5% 0.01W 0402
3041	4822 117 13606	10kΩ 5% 0.01W 0402
3042	3198 031 06820	6.8kΩ 5% 0.01W 0402
3051	4822 117 13597	330Ω 5% 0.01W 0402
3060	4822 117 13606	10kΩ 5% 0.01W 0402
3061	4822 051 30331	330Ω 5% 0.062W
3062	4822 117 11373	100Ω 1% 0805
3063	4822 117 13606	10kΩ 5% 0.01W 0402
3064	4822 117 11373	100Ω 1% 0805
3070	2322 705 70475	4.7MΩ 5% 0402
3071	2322 705 70475	4.7MΩ 5% 0402
3072	4822 117 13548	1kΩ 5% 0402
3073	3198 031 03320	3.3kΩ 5% 0402
3074	4822 117 13606	10kΩ 5% 0.01W 0402
3075	3198 031 04720	4.7kΩ 5% 0402
3076	3198 031 03320	3.3kΩ 5% 0402
3077	3198 031 03320	3.3kΩ 5% 0402
3078	3198 031 03320	3.3kΩ 5% 0402
3079	3198 031 03320	3.3kΩ 5% 0402

3091	4822 117 13606	10kΩ 5% 0.01W 0402
3093	4822 117 13606	10kΩ 5% 0.01W 0402
3096	4822 117 13606	10kΩ 5% 0.01W 0402
3999	3198 031 04720	4.7kΩ 5% 0402
9010	4822 117 13605	Jumper 0402
9012	4822 117 13605	Jumper 0402
9013	4822 117 13605	Jumper 0402
9014	4822 117 13605	Jumper 0402
9015	4822 117 13605	Jumper 0402
9016	4822 117 13605	Jumper 0402
9017	4822 117 13605	Jumper 0402
9019	4822 117 13605	Jumper 0402
9022	4822 051 30008	Jumper 0603
9024	4822 051 30008	Jumper 0603
9026	4822 117 13605	Jumper 0402
9027	4822 117 13605	Jumper 0402
9040	4822 117 13605	Jumper 0402
9041	4822 117 13605	Jumper 0402
9042	4822 117 13605	Jumper 0402
9043	4822 117 13605	Jumper 0402
9044	4822 117 13605	Jumper 0402
9050	4822 117 13605	Jumper 0402
9060	4822 117 13605	Jumper 0402
9081	4822 117 13605	Jumper 0402
9082	4822 117 13605	Jumper 0402

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6030	4822 130 11397	BAS316
6031	4822 130 11397	BAS316
6051	4822 130 11395	TLMH3100
6051	4822 130 83915	TLMV3100
6060	9322 208 45685	SML512BC4TL
6061	4822 130 11397	BAS316
6070	9322 140 63685	TEMD5000

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7030	3198 010 42320	BC857BW
7031	5322 130 62804	BCP53
7032	3198 010 42310	BC847BW
7060	3198 010 42310	BC847BW
7061	3198 010 42310	BC847BW
7070	9322 192 63668	LM358P

Standby/Audio Panel [SA]

Various

1303	2422 025 04475	Connector 4p m
1304	2422 025 10647	Connector 4p m
1305	4822 267 10735	Connector 3p
1306▲	2422 025 16374	Connector 2p m
1307	2422 025 10647	Connector 4p m
1309	2422 025 11143	Connector 3p m
1314	2422 025 10771	Connector 10p m
1315	2422 025 10771	Connector 10p m
1316	2422 025 10772	Connector 12p m
1317	2422 025 10772	Connector 12p m
1318	2422 025 08149	Connector 6p m
1320	2422 025 11143	Connector 3p m
1735	4822 267 10918	Connector 3p
1736	2422 025 10768	Connector 3p m
1738	2422 025 10768	Connector 3p m
1739	2422 025 10769	Connector 9p m
1D40	4822 267 10637	Connector 5p
1D42	4822 267 10637	Connector 5p
1K49	2422 025 18884	Connector 4p m
1M02	2422 025 11244	Connector 7p m
1M03	2422 025 10771	Connector 10p m
1M10	2422 025 09406	Connector 4p m
1M46	2422 025 10655	Connector 11p m
1M49	2422 025 18884	Connector 4p m
1M63	2422 025 09405	Connector 2p m

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2101	4822 121 51598	2.2nF 5% 400V
2102	4822 124 40207	100µF 20% 25V
2103	2020 552 94427	100pF 5% 50V
2105	2020 552 94427	100pF 5% 50V
2109	4822 126 14583	470nF 10% 16V 0805
2110	2022 552 05679	1µF 10% 16V 0805
2111	4822 121 43526	47nF 5% 250V
2112	5322 126 11583	10nF 10% 50V 0603
2123	2238 586 59812	100nF 20% 50V 0603
2124	4822 124 40248	10µF 20% 63V
2129	5322 126 11578	1nF 10% 50V 0603
2131	2238 586 15641	22nF 10% 50V 0603
2132	4822 124 40207	100µF 20% 25V
2140	4822 124 40248	10µF 20% 63V
2141	4822 126 14583	470nF 10% 16V 0805
2144	2022 552 05679	1µF 10% 16V 0805
2145	4822 126 13881	470pF 5% 50V
2149	4822 126 14583	470nF 10% 16V 0805
2150	4822 124 12379	220µF 25V
2152	4822 121 70162	10nF 5% 400V
2153	5322 126 11582	6.8nF 10% 63V
2154	3198 017 31530	15nF 20% 50V 0603
2160	4822 124 21913	1µF 20% 63V
2163	4822 124 40207	100µF 20% 25V
2506▲	2252 811 95017	470pF 10% 250V
2507	4822 126 13682	100pF 5% 1kV
2508	4822 124 40764	22µF 100V
2510	2020 021 91668	2200µF 20% 10V
2511	4822 124 12379	220µF 25V
2512	4822 124 80061	1000µF 20% 25V
2513	2222 930 56627	2.2nF 10% 200V 0805
2515	4822 126 14238	2.2nF 50V 0603
2533	4822 124 40207	100µF 20% 25V
2534	2022 552 05679	1µF 10% 16V 0805
2535	5322 126 11583	10nF 10% 50V 0603
2536	5322 126 11583	10nF 10% 50V 0603
2537	4822 126 14238	2.2nF 50V 0603
2538	5322 126 11583	10nF 10% 50V 0603
2539	2022 552 05679	1µF 10% 16V 0805
2540	5322 126 11583	10nF 10% 50V 0603
2544	5322 126 11583	10nF 10% 50V 0603
2702	5322 126 11578	1nF 10% 50V 0603
2704	5322 126 11578	1nF 10% 50V 0603
2705	2020 552 96684	470nF 10% 25V 0805
2706	2222 580 15649	100nF 10% 50V 0805
2707	4822 126 14585	100nF 10% 0805 50V
2708	2020 552 96326	220nF 10% 16V
2709	4822 126 13881	470pF 5% 50V
2710	4822 126 13881	470pF 5% 50V
2711	5322 126 11578	1nF 10% 50V 0603
2712	2020 552 96683	220nF 10% 50V
2713	2020 552 96684	470nF 10% 25V 0805
2714	3198 017 33330	33nF 20% 16V 0603
2715	5322 126 11578	1nF 10% 50V 0603
2716	4822 126 14241	330pF 0603 50V
2717	5322 121 42498	680nF 5% 63V
2718	4822 122 33761	22pF 5% 50V
2719	5322 126 11578	1nF 10% 50V 0603
2720	2020 552 96326	220nF 10% 16V
2721	4822 126 13881	470pF 5% 50V
2722	4822 126 13881	470pF 5% 50V
2723	5322 126 11578	1nF 10% 50V 0603
2725	2020 552 94427	100pF 5% 50V
2726	3198 017 33330	33nF 20% 16V 0603
2727	5322 126 11578	1nF 10% 50V 0603
2728	4822 126 14241	330pF 0603 50V
2729	5322 121 42498	680nF 5% 63V
2741	4822 122 33761	22pF 5% 50V
2743	4822 126 12105	33nF 5% 50V 0805
2753	2020 552 96326	220nF 10% 16V
2754	4822 126 14491	2.2µF 10V 0805
2755	5322 126 11578	1nF 10% 50V 0603
2756	4822 126 13881	470pF 5% 50V
2758	5322 121 42498	680nF 5% 63V
2759	5322 126 10511	1nF 5% 50V
2762	2020 552 96326	220nF 10% 16V
2764	4822 126 14585	100nF 10% 0805 50V
2766	4822 126 14585	100nF 10% 0805 50V
2768	4822 124 40255	100µF 20% 63V
2769	4822 124 40255	100µF 20% 63V
2777	2020 552 96683	220nF 10% 50V
2778	4822 124 40769	4.7µF 20% 100V
2779	2020 552 96683	220nF 10% 50V
2780	2020 552 96683	220nF 10% 50V
2781	2020 552 96683	220nF 10% 50V
2782	2020 552 96683	220nF 10% 50V
2783	4822 124 41751	47µF 20% 50V
2784	2020 552 96683	220nF 10% 50V
2786	2238 586 15641	22nF 10% 50V 0603
2788	4822 124 40255	100µF 20% 63V
2789	2020 552 96683	220nF 10% 50V
2790	4822 124 40255	100µF 20% 63V
2791	2022 552 05679	1µF 10% 16V 0805
2792	2022 552 05679	1µF 10% 16V 0805
2793	4822 124 40255	100µF 20% 63V
2794	2022 552 05679	1µF 10% 16V 0805
2795	2020 552 96683	220nF 10% 50V
2796	2022 552 05679	1µF 10% 16V 0805
2797	4822 126 14076	220nF +80/-20% 25V
2798	4822 126 14076	220nF +80/-20% 25V
2799	4822 124 40255	100µF 20% 63V

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3100	4822 051 30101	100Ω 5% 0.062W
3101	4822 053 20475	4.7MΩ 5% 0.25W
3102	2312 915 11002	1kΩ 1% 0.5W
3103	2312 915 11002	1kΩ 1% 0.5W
3104	3198 021 32290	22Ω 5% 0603
3104	9965 000 23109	22Ω 5% 0603
3105	4822 051 30221	220Ω 5% 0.062W
3106	4822 051 30391	390Ω 5% 0.062W
3107	4822 051 30391	390Ω 5% 0.062W
3108	4822 053 10478	4.7Ω 5% 1W
3109	4822 051 30391	390Ω 5% 0.062W
3110	4822 051 30391	390Ω 5% 0.062W
3111	4822 053 10152	1.5kΩ 5% 1W
3112	4822 051 30391	390Ω 5% 0.062W
3113	3198 021 32290	22Ω 5% 0603
3113	9965 000 23109	22Ω 5% 0603
3114	4822 051 30221	220Ω 5% 0.062W
3117	4822 051 30479	47Ω 5% 0.062W
3122	4822 051 30471	47Ω 5% 0.062W
3123	4822 051 30109	10Ω 5% 0.062W
3124	4822 051 30339	33Ω 5% 0.062W
3125	4822 117 12971	15Ω 5% 0603 0.62W
3126	4822 051 30103	10kΩ 5% 0.062W
3127	4822 051 30562	5.6kΩ 5% 0.063W 0603
3128	4822 117 13608	4.7Ω 5% 0603 0.62W
3132	4822 051 30333	33kΩ 5% 0.062W
3134	4822 051 30102	1kΩ 5% 0.062W
3135	4822 051 30331	330Ω 5% 0.062W
3138	4822 051 30105	1MΩ 5% 0.062W
3140	4822 051 30223	22kΩ 5% 0.062W
3141	4822 051 30471	47Ω 5% 0.062W
3145	4822 051 30472	4.7Ω 5% 0.062W
3146	4822 051 30479	47Ω 5% 0.062W
3147	4822 051 30223	22kΩ 5% 0.062W
3148	4822 051 30479	47Ω 5% 0.062W
3149	4822 051 30103	10kΩ 5% 0.062W
3150	4822 051 30101	100Ω 5% 0.062W
3152	4822 051 30102	1kΩ 5% 0.062W
3153	4822 051 30223	22kΩ 5% 0.062W
3155	4822 050 21003	10kΩ 1% 0.6W
3156	4822 051 30102	1kΩ 5% 0.062W
3157	4822 051 30223	22kΩ 5% 0.062W
3158	4822 051 30479	47Ω 5% 0.062W
3159	4822 051 30479	47Ω 5% 0.062W
3160	4822 051 30102	1kΩ 5% 0.062W
3161	4822 051 30123	12kΩ 5% 0.1W
3171	4822 051 30101	100Ω 5% 0.062W
3172	4822 051 30333	33kΩ 5% 0.062W
3175	4822 051 30103	10kΩ 5% 0.062W
3176	4822 051 30103	10kΩ 5% 0.062W
3190	4822 053 10122	1.2kΩ 5% 1W
3191	4822 053 10122	1.2kΩ 5% 1W
3192	4822 053 10122	1.2kΩ 5% 1W
3509	4822 053 10222	2.2kΩ 5% 1W
3511	4822 051 30683	68kΩ 5% 0.062W
3512	4822 051 30471	47Ω 5% 0.062W
3513	4822 051 30333	33kΩ 5% 0.062W
3515	4822 117 13632	100kΩ 1% 0603 0.62W
3516	4822 051 30472	4.7Ω 5% 0.062W
3517	4822 051 30223	22kΩ 5% 0.062W
3528	4822 051 30472	4.7Ω 5% 0.062W
3529	4822 051 30101	100Ω 5% 0.062W
3531	4822 051 30153	15kΩ 5% 0.062W
3532	4822 051 30472	4.7Ω 5% 0.062W
3533	4822 051 30152	1.5Ω 5% 0.062W
3534	4822 051 30103	10kΩ 5% 0.062W
3538	4822 051 30101	100Ω 5% 0.062W
3539	4822 051 30471	47Ω 5% 0.062W
3540	4822 051 30222	2.2kΩ 5% 0.062W
3541	4822 051 30222	2.2kΩ 5% 0.062W
3542	4822 051 30103	10kΩ 5% 0.062W
3543	4822 051 30223	22kΩ 5% 0.062W
3544	4822 051 30101	100Ω 5% 0.062W
3544	4822 051 30221	220Ω 5% 0.062W
3560	3198 021 31820	1.8kΩ 5% 0.062W 0603
3560	4822 051 30682	6.8Ω 5% 0.062W
3561	4822 051 30392	3.9Ω 5% 0.063W 0603
3561	4822 051 30471	47Ω 5% 0.062W
3562	4822 117 13608	4.7Ω 5% 0603 0.62W
3701	4822 051 30103	10kΩ 5% 0.062W
3702	4822 051 30682	6.8Ω 5% 0.062W
3703	4822 051 30333	33kΩ 5% 0.062W
3704	4822 117 10833	10kΩ 1% 0.1W
3705	4822 051 20828	8.2Ω 5% 0.1W
3706	4822 051 30472	4.7Ω 5% 0.062W
3707	4822 051 30683	68kΩ 5% 0.062W
3708	4822 051 30563	56kΩ 5% 0.062W
3709	4822 117 11503	220Ω 1% 0.1W
3710	4822 051 30223	22kΩ 5% 0.062W
3711	4822 050 21204	120kΩ 1% 0.6W
3712	4822 051 30103	10kΩ 5% 0.062W
3713	2312 915 11202	1.2kΩ 1% 0.5W
3714	4822 117 12925	47kΩ 1% 0.063W 0603
3715	4822 117 12925	47kΩ 1% 0.063W 0603
3716	4822 117 12925	47kΩ 1% 0.063W 0603
3717	4822 117 13632	100kΩ 1% 0603 0.62W

3718	4822 117 13632	100kΩ 1% 0603 0.62W
3720	4822 117 11503	220Ω 1% 0.1W
3721	4822 051 30472	4.7Ω 5% 0.062W
3722	4822 051 30683	68kΩ 5% 0.062W
3723	4822 051 30563	56kΩ 5% 0.062W
3724	4822 117 11503	220Ω 1% 0.1W
3725	4822 051 30223	22kΩ 5% 0.062W
3726	4822 117 11503	220Ω 1% 0.1W
3727	4822 117 11503	220Ω 1% 0.1W
3729	4822 117 10837	100kΩ 1% 0.1W
3730	4822 117 11503	220Ω 1% 0.1W
3741	4822 051 30103	10kΩ 5% 0.062W
3743	4822 117 11449	2.2kΩ 5% 0.1W 0805
3744	4822 117 13632	100kΩ 1% 0603 0.62W
3746	4822 051 30223	22kΩ 5% 0.062W
3747	4822 050 21004	100kΩ 1% 0.6W
3748	4822 051 30471	47Ω 5% 0.062W
3749	4822 051 30471	47Ω 5% 0.062W
3750	4822 117 11449	2.2kΩ 5% 0.1W 0805
3751	4822 117 11449	2.2kΩ 5% 0.1W 0805
3752	4822 051 30331	330Ω 5% 0.062W
3753	4822 117 11449	2.2kΩ 5% 0.1W 0805
3754	4822 051 30223	22kΩ 5% 0.062W
3755	4822 051 30471	47Ω 5% 0.062W
3756	4822 117 11449	2.2kΩ 5% 0.1W 0805
3757	4822 117 11449	2.2kΩ 5% 0.1W 0805
3758	3198 021 38220	8.2kΩ 5% 0.062W 0603
3759	4822 051 30332	3.3Ω 5% 0.062W
3760	4822 051 30332	3.3Ω 5% 0.062W
3761	4822 051 20109	10Ω 5% 0.1W
3762	4822 051 30222	2.2kΩ 5% 0.062W
3763	4822 051 30222	2.2kΩ 5% 0.062W
3764	4822 051 20109	10Ω 5% 0.1W
3765	4822 051 30103	10kΩ 5% 0.062W
3766	4822 117 13632	100kΩ 1% 0603 0.62W
3767	4822 117 13632	100kΩ 1% 0603 0.62W
3768	4822 117 13632	100kΩ 1% 0603 0.62W
3790	4822 051 30272	2.7kΩ 5% 0.062W
3791	4822 051 30272	2.7kΩ 5% 0.062W
3792	4822 051 30183	18kΩ 5% 0.062W
3793	4822 051 30183	18kΩ 5% 0.062W
3794	4822 051 30563	56kΩ 5% 0.062W
3796	4822 051 30332	3.3Ω 5% 0.062W
3798	4822 051 30153	15kΩ 5% 0.062W
3999	4822 051 30102	1kΩ 5% 0.062W
3999	4822 051 30222	2.2kΩ 5% 0.062W
9041	4822 051 20008	Jumper 0805
9042	4822 051 20008	Jumper 0805
9044	4822 051 20008	Jumper 0805
9080	4822 051 20008	Jumper 0805
9081	4822 051 20008	Jumper 0805

5102	4822 526 10704	Bead 50 Ω at 100MHz
5103	4822 526 10704	Bead 50 Ω at 100MHz
5104	4822 157 11411	Bead 80Ω at 100MHz
5105	2422 549 43769	Bead 30Ω at 100MHz
5106	4822 157 11441	22μH 5%
5108	4822 526 10704	Bead 50 Ω at 100MHz
5110	4822 157 71736	10μH 5%
5500▲	3104 308 21181	Transf. BS25320-00
5504	2422 536 00776	33μH 10%
5505	4822 157 11411	Bead 80Ω at 100MHz
5506	4822 157 11411	Bead 80Ω at 100MHz
5507	2422 536 00433	15μH 10%
5701	2422 536 00951	68μH 20% LHL10
5702	2422 536 00951	68μH 20% LHL10
5703	4822 157 11716	Bead 30Ω at 100MHz
5704	4822 157 11411	Bead 80Ω at 100MHz
5705	4822 157 11716	Bead 30Ω at 100MHz
5707	4822 157 11411	Bead 80Ω at 100MHz
5708	4822 157 11411	Bead 80Ω at 100MHz
5711	4822 157 11411	Bead 80Ω at 100MHz
5712	4822 157 11411	Bead 80Ω at 100MHz
5720	2422 536 00951	68μH 20% LHL10
5722	4822 157 11411	Bead 80Ω at 100MHz
5723	4822 157 11411	Bead 80Ω at 100MHz
5730	2422 549 00112	Line filt. 50V 3A
5731	2422 549 00112	Line filt. 50V 3A
5732	2422 549 00112	Line filt. 50V 3A

6103	4822 130 10871	SBYV27-200
6103	5322 130 31938	BYV27-200
6104	9340 548 69115	PDZ27B
6105	4822 130 11522	UDZ15B
6106	9340 548 67115	PDZ22B
6107	4822 130 11572	STPS8H100F
6108	4822 130 80622	BAT54
6114	4822 130 10871	SBYV27-200
6114	5322 130 31938	BYV27-200
6115	4822 130 80622	BAT54
6116	3198 020 55680	BZX384-C5V6
6120	4822 130 11397	BAS316
6121	4822 130 11397	BAS316
6122	9322 129 34685	BZM55-C3V9
6130	9322 129 41685	BZM55-C12
6132	4822 130 11416	PDZ6.8B
6133	4822 130 11397	BAS316
6134	4822 130 11397	BAS316
6140	4822 130 83755	BYW36
6142	4822 130 80622	BAT54
6144	4822 130 11397	BAS316
6147	9322 208 44685	BZG05C6V8
6148	4822 130 11397	BAS316
6149	3198 020 55680	BZX384-C5V6
6150	9340 292 50135	BZG03-C200
6151	9340 548 71115	PDZ33B
6153	9340 292 50135	BZG03-C200
6156	4822 130 11397	BAS316
6504	9322 203 12673	BYV27-600
6511	9322 129 41685	BZM55-C12
6531	4822 130 11522	UDZ15B
6532	4822 130 11397	BAS316
6540	4822 130 80622	BAT54
6562	9340 548 67115	PDZ22B
6701	4822 130 11397	BAS316
6702	4822 130 11551	UDZS10B
6703	4822 130 11551	UDZS10B
6710	4822 130 11522	UDZ15B
6711	4822 130 11522	UDZ15B

7100	3198 010 42320	BC857BW
7101	9340 219 30115	BC817-25W
7102	9322 160 34687	FQPF3N60
7105	3198 010 42320	BC857BW
7131	9340 557 69127	PHX9NQ20T
7140	3198 010 42310	BC847BW
7150▲	9322 149 04682	TCET1102
7501▲	9322 149 04682	TCET1102
7505	3198 010 42320	BC857BW
7506	3198 010 42310	BC847BW
7507	3198 010 42310	BC847BW
7509	3198 010 42310	BC847BW
7511	9337 331 10215	BST82
7512	9340 422 80115	PMSTA42
7531	9340 436 50115	BSP030
7532	3198 010 42310	BC847BW
7560	9340 219 30115	BC817-25W
7700	9322 163 86682	TDA7490L
7701	3198 010 42310	BC847BW
7702	9322 147 23682	TDA7481
7703	3198 010 42310	BC847BW
7704	3198 010 42310	BC847BW
7705	3198 010 42310	BC847BW
7706	3198 010 42320	BC857BW
7707	3198 010 42310	BC847BW
7708	3198 010 42310	BC847BW
7709	3198 010 42310	BC847BW
7710	3198 010 42310	BC847BW
7711	3198 010 42310	BC847BW
7712	5322 130 60159	BC846B
7713	4822 130 60373	BC856B
7715	4822 209 30095	LM833D